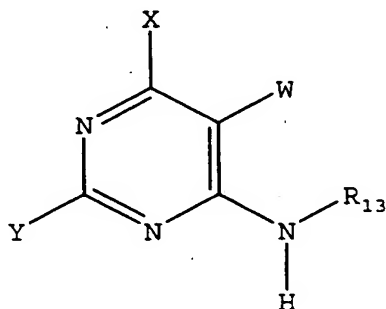


What is claimed:

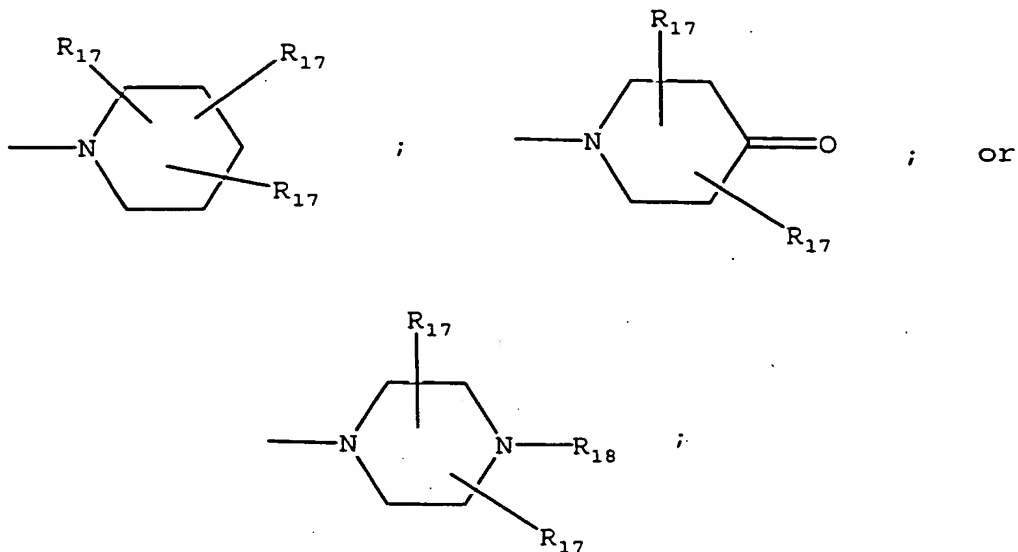
1. A method of treating a subject suffering from depression which comprises administering to the subject an amount of compound effective to treat the subject's depression wherein the compound has the structure:



wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

10

wherein X is; $\text{NR}_{11}\text{R}_{12}$;



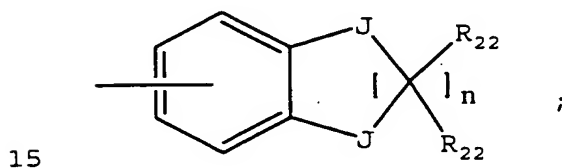
wherein R_{11} is H, straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, aryl, or aryl $(\text{C}_1\text{-C}_6)$ alkyl;

wherein R_{12} is straight chained or branched C_1 - C_7 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, or $-(CH_2)_m-Z$;

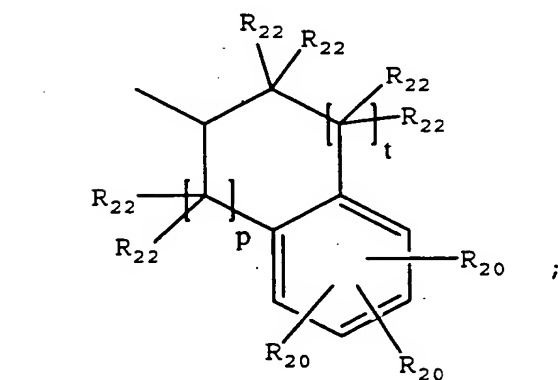
- 5 wherein R_{13} is a bicyclic alkyl ring system, adamantyl, noradamantyl, C_3 - C_{10} cycloalkyl, heteroaryl, aryl, aryl(C_1 - C_6)alkyl, Q_1 or Q_2 ;

wherein aryl may be substituted with one or more C_1 - C_{10}
 10 straight chained or branched alkyl, aryl, heteroaryl, or $N(R_{19})-Z$;

wherein Q_1 is



wherein Q_2 is

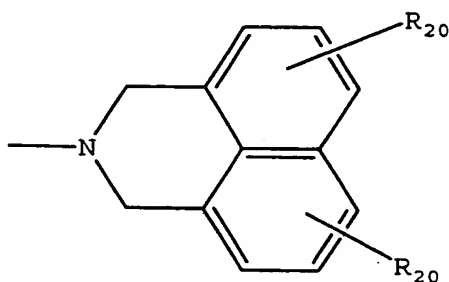
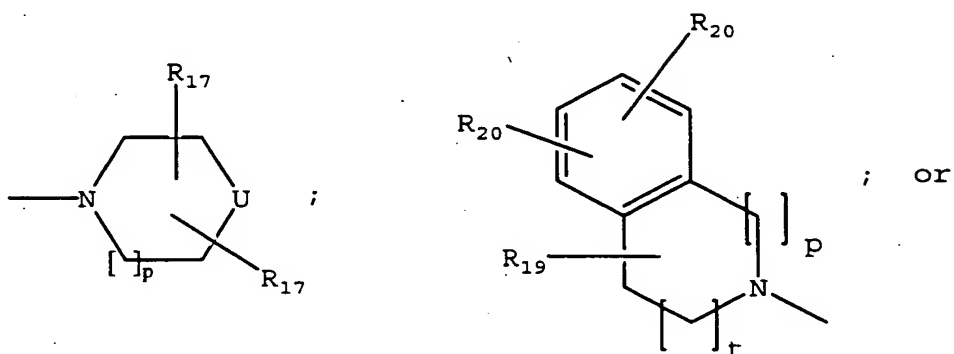


wherein each J is independently O, S, $C(R_{22})_2$ or NR_4 ;

wherein R_4 is H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl or aryl;

5

wherein Y is $NR_{14}R_{15}$;



10

wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

15 wherein R_{15} is straight chained or branched C_3 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, $(C(R_{19})_2)_mN(R_{16})_2$ or $(C(R_{19})_2)_m-Z$;

wherein R_{16} is straight chained or branched C_1 - C_7 alkyl,
20 straight chained or branched C_1 - C_7 monofluoroalkyl,

straight chained or branched C_1-C_7 polyfluoroalkyl, straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

5

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1-C_7 alkyl, straight chained or branched C_1-C_7 monofluoroalkyl, straight chained or branched C_1-C_7 polyfluoroalkyl, straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

10

wherein R_{18} is straight chained or branched C_1-C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

15

wherein each R_{19} is independently H, or straight chained or branched C_1-C_6 alkyl;

20 wherein each R_{20} is independently -H; straight chained or branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7 cycloalkyl or C_5-C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

25

wherein each R_{21} is independently -H; straight chained or branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7 cycloalkyl, C_5-C_7 cycloalkenyl, aryl, or aryl(C_1-

30

C₆)alkyl;

wherein each R₂₂ is independently H, F, Cl or C₁-C₄ straight chained or branched alkyl;

5

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

10 wherein p is an integer from 0 to 2 inclusive;

wherein q is an integer from 2 to 4 inclusive;

wherein t is 1 or 2;

15

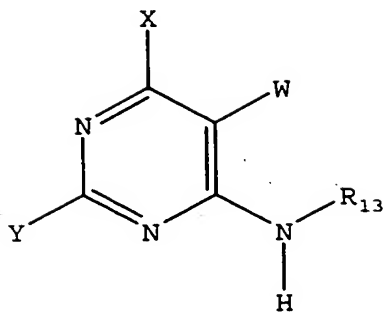
wherein U is O, -NR₁₆, S, C(R₁₇)₂, or -NSO₂R₁₆;

wherein Z is C₃-C₁₀ cycloalkyl, C₄-C₇ cyclic ether, C₄-C₇ cyclic thioether, aryl, or heteroaryl; or

20

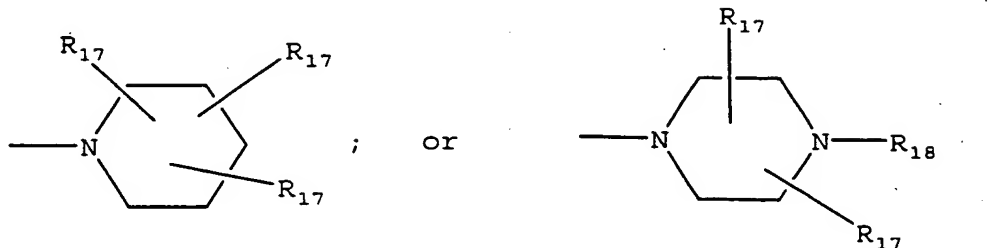
a pharmaceutically acceptable salt thereof.

2. A method of treating a subject suffering from
25 depression which comprises administering to the subject
an amount of compound effective to treat the subject's
depression wherein the compound has the structure:



wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

5 wherein X is $\text{NR}_{11}\text{R}_{12}$;



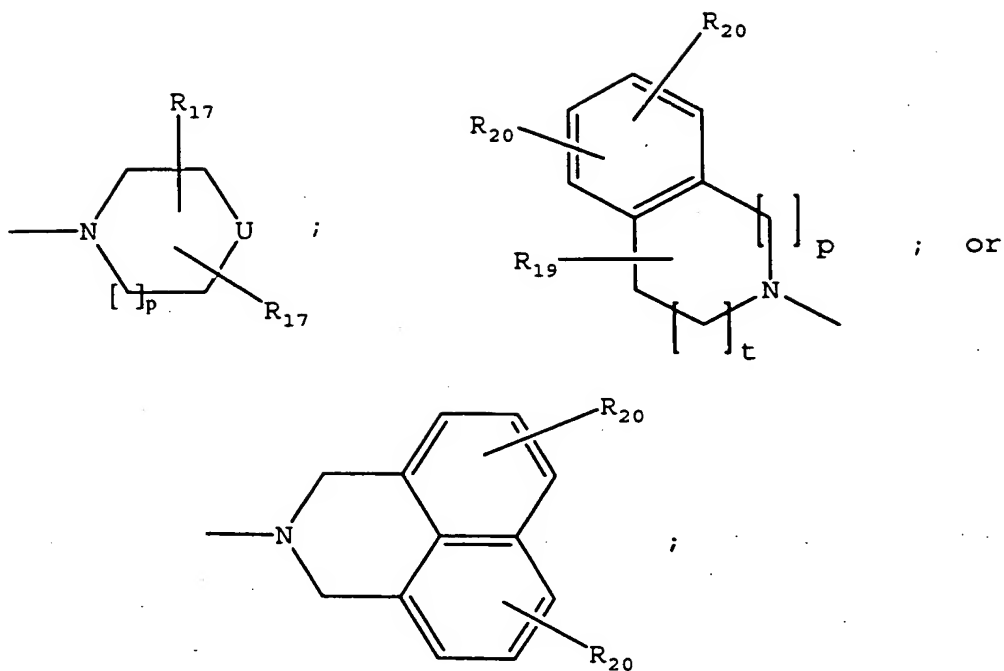
wherein R_{11} is H, straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, aryl or aryl($\text{C}_1\text{-C}_6$)alkyl;

10 wherein R_{12} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, or $-(\text{CH}_2)_m\text{-Z}$;

wherein R_{13} is a bicyclic alkyl ring system, aryl or aryl($\text{C}_1\text{-C}_6$)alkyl;

15

wherein Y is $\text{NR}_{14}\text{R}_{15}$;



wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

5

wherein R_{15} is straight chained or branched C_3 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

10

wherein Z is C_3 - C_{10} cycloalkyl, aryl, or heteroaryl;

wherein R_{16} is straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, 15 straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein R_{18} is straight chained or branched C_1 - C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{19} is independently H, or straight chained or branched C_1 - C_6 alkyl;

wherein each R_{20} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

wherein each R_{21} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein p is an integer from 0 to 2 inclusive;

wherein q is an integer from 2 to 4 inclusive;

5

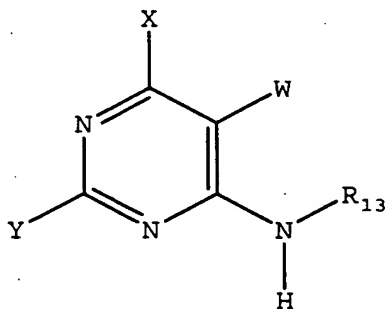
wherein t is 1 or 2; or

a pharmaceutically acceptable salt thereof.

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3. A method of treating a subject suffering from depression which comprises administering to the subject an amount of compound effective to treat the subject's depression wherein the compound has the structure:

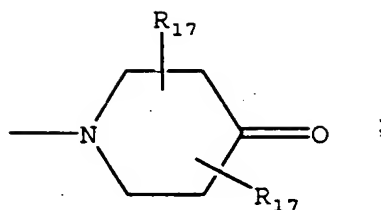
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wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

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wherein X is N(CH₃)₂ or

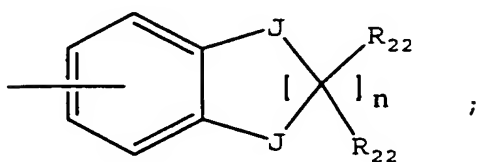


wherein R_{13} is an aryl, adamantyl, noradamantyl, C_3 - C_{10} cycloalkyl, heteroaryl, Q_1 or Q_2 ;

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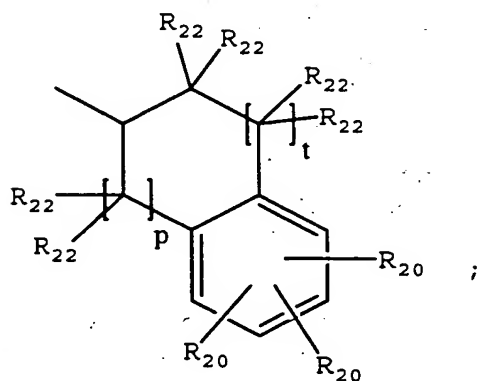
wherein aryl may be substituted with one or more C_1 - C_{10} straight chained or branched alkyl, aryl, heteroaryl, or $N(R_{19})-Z$;

10 wherein Q_1 is



wherein Q_2 is

15

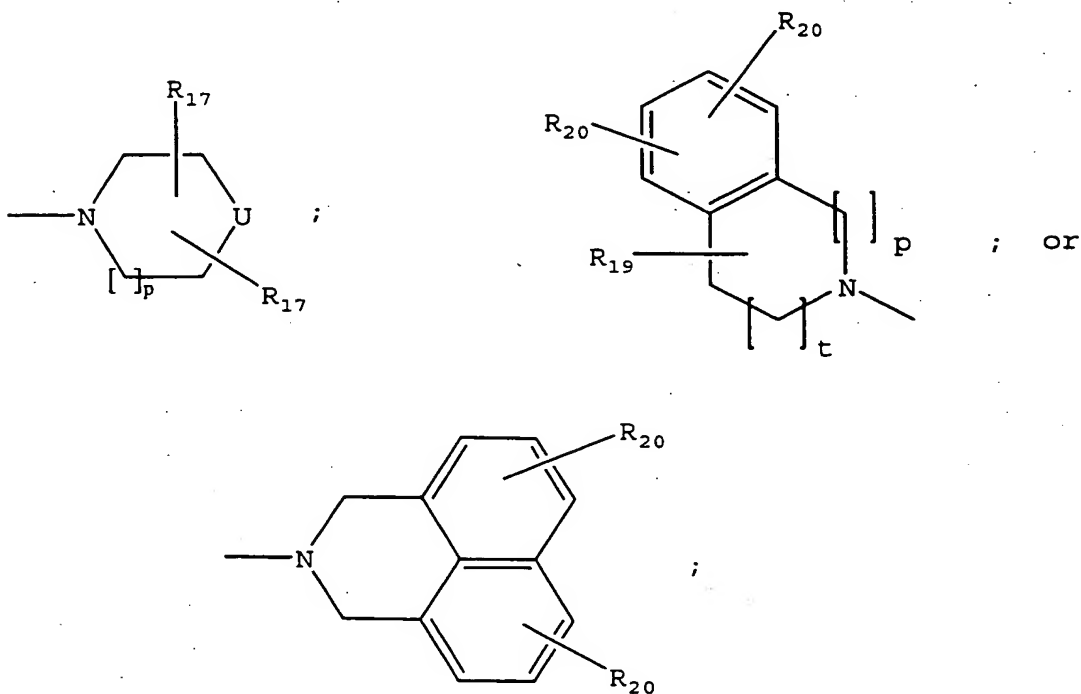


wherein each J is independently O , S , $C(R_{22})_2$ or NR_4 ;

wherein R_4 is -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl or aryl;

5

wherein Y is $NR_{14}R_{15}$;



10 wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

wherein R_{15} is straight chained or branched C_3 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

15

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

wherein Z is C_3 - C_{10} cycloalkyl, aryl, or heteroaryl;

wherein R_{16} is straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl,
 5 straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$,
 10 $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7
 15 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein R_{18} is straight chained or branched C_1 - C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

20 wherein each R_{19} is independently H, or straight chained or branched C_1 - C_6 alkyl;

wherein each R_{20} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl;
 25 straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to
 30 form a methylenedioxy group;

wherein each R_{21} is independently -H; straight chained or

branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl;
 straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-
 C₇ cycloalkyl, C₅-C₇ cycloalkenyl, aryl or aryl(C₁-
 C₆)alkyl;

5

wherein each R₂₂ is independently H, F, Cl or C₁-C₄
 straight chained or branched alkyl;

wherein each m is an integer from 0 to 4 inclusive;

10

wherein each n is an integer from 1 to 4 inclusive;

wherein p is an integer from 0 to 2 inclusive;

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wherein q is an integer from 2 to 4 inclusive;

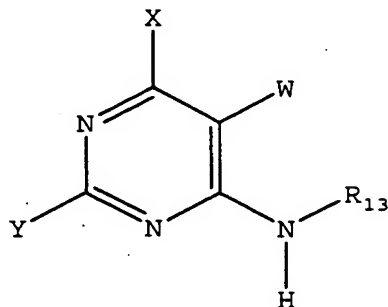
wherein t is 1 or 2; or

a pharmaceutically acceptable salt thereof.

20

4. A method of treating a subject suffering from
 depression which comprises administering to the
 subject an amount of compound effective to treat the
 subject's depression wherein the compound has the
 structure:

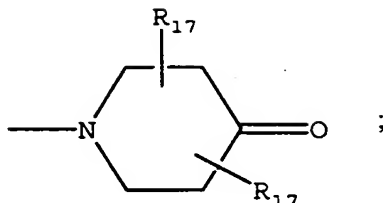
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wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

5

wherein X is $N(CH_3)_2$ or



10 wherein R_{13} is a bicyclic alkyl ring system, aryl or aryl(C_1-C_6)alkyl;

wherein Y is $NR_{14}R_{15}$;

15 wherein R_{14} is H, straight chained or branched C_1-C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3-C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

wherein R_{15} is $(C(R_{19})_2)_m-N(R_{16})_2$;

20 wherein Z is C_3-C_{10} cycloalkyl, aryl, or heteroaryl;

wherein R_{16} is straight chained or branched C_1-C_7 alkyl, straight chained or branched C_1-C_7 monofluoroalkyl, straight chained or branched C_1-C_7 polyfluoroalkyl, 25 straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$,

-NCOR₂₁, -N(R₂₁)₂, -CON(R₂₁)₂, -COOR₂₁, straight chained or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl, straight chained or branched C₂-C₇ alkenyl, straight chained or branched C₂-C₇ alkynyl, C₅-C₇ cycloalkenyl, -(CH₂)_m-Z, or (CH₂)_n-O-(CH₂)_m-CH₃;

wherein each R₁₉ is independently H, or straight chained or branched C₁-C₆ alkyl;

10

wherein each R₂₁ is independently -H; straight chained or branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl, C₅-C₇ cycloalkenyl, aryl or aryl(C₁-C₆)alkyl;

15

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

20

wherein q is an integer from 2 to 4 inclusive; or

a pharmaceutically acceptable salt thereof.

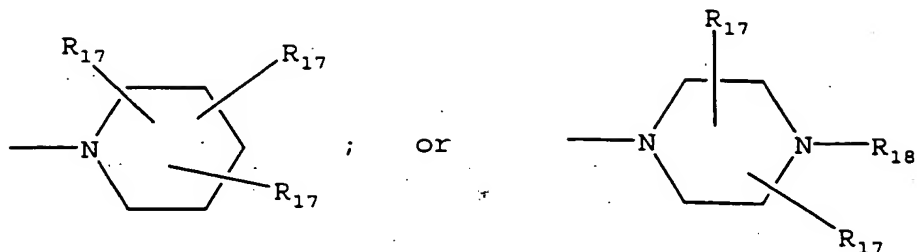
25 5. The method of claim 1, 2, 3 or 4, wherein the compound is enantiomerically and diasteriomERICALLY pure.

6. The method of claim 1, 2, 3 or 4, wherein the compound is enantiomerically or diasteriomERICALLY pure.

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7. The method of claim 1, 2, 3 or 4, wherein the compound can be administered orally.

8. The method of claim 1, wherein X is:

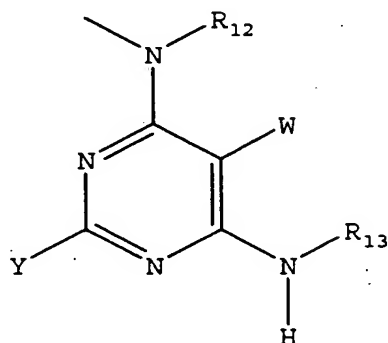


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9. The method of claim 1, wherein X is $\text{NR}_{11}\text{R}_{12}$ and R_{11} is H or straight chained or branched $\text{C}_1\text{-C}_7$ alkyl.

10. The method of claim 9, wherein the compound has the structure:

10



11. The method of claim 8, wherein R_{13} is a bicyclic alkyl ring system, cyclohexyl or aryl.

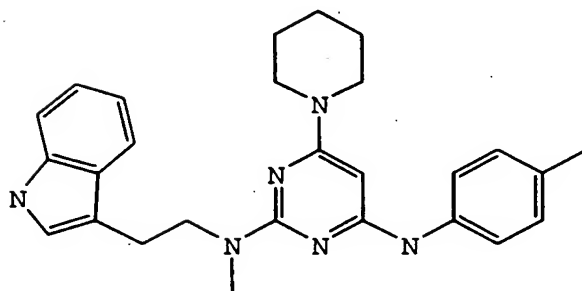
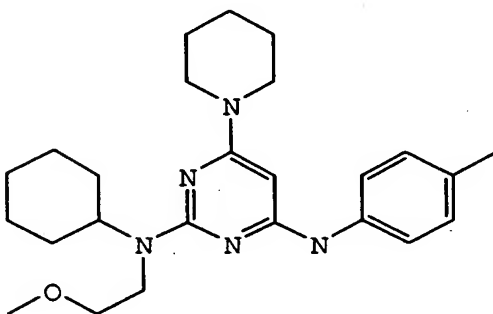
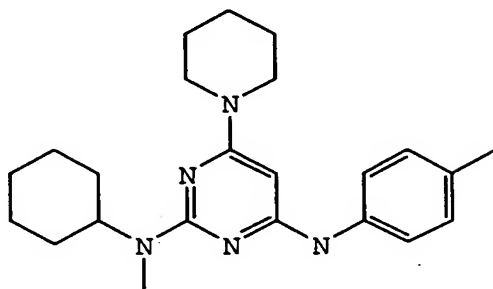
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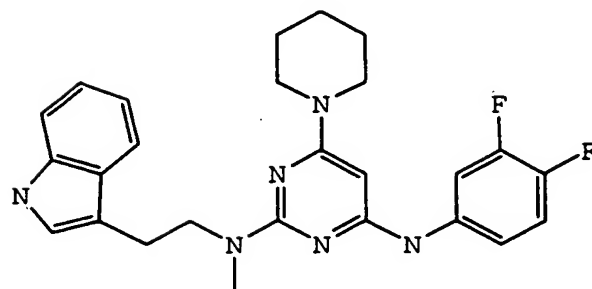
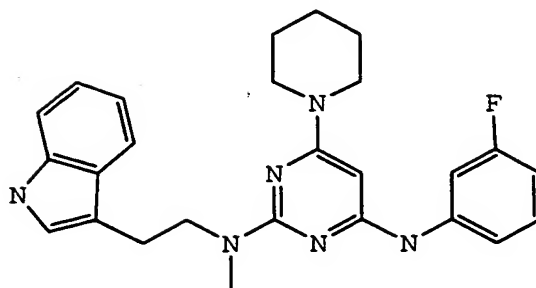
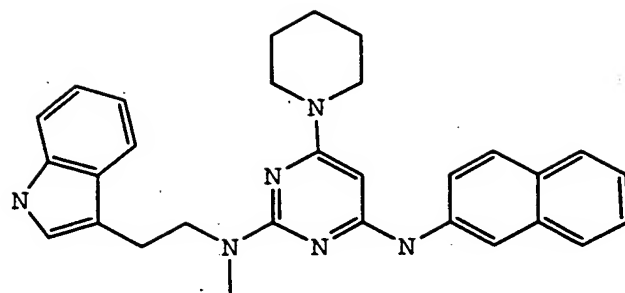
12. The method of claim 10, wherein R_{13} is a bicyclic alkyl ring system, cyclohexyl or aryl.

13. The method of claim 11, wherein R_{14} is H, straight
20 chained or branched $\text{C}_1\text{-C}_6$ alkyl or $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$.

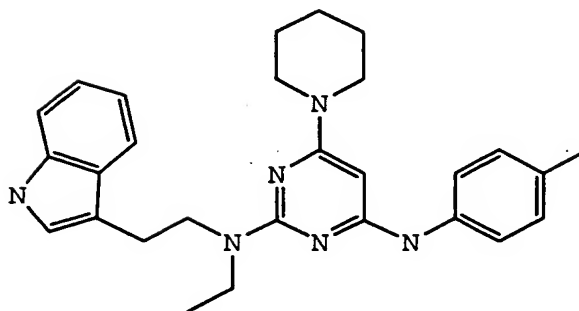
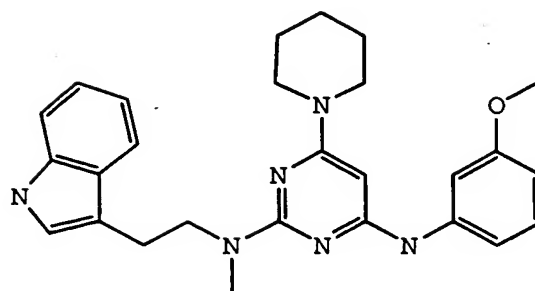
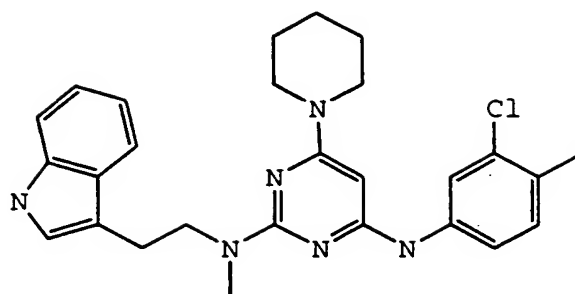
14. The method of claim 12, wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl or $(CH_2)_q-O-(CH_2)_m-CH_3$.

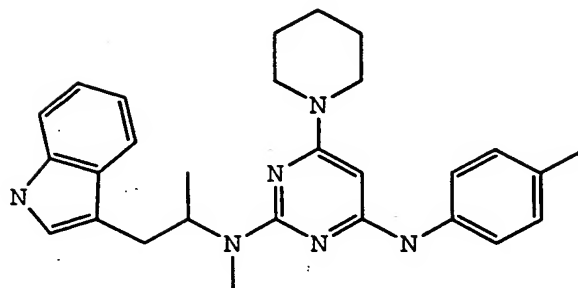
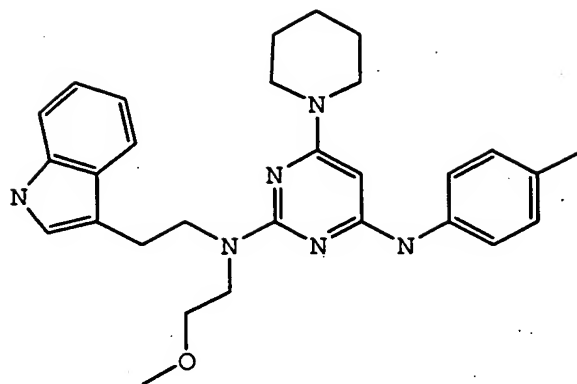
5 15. The method of claim 13, wherein the compound is selected from the group consisting of:



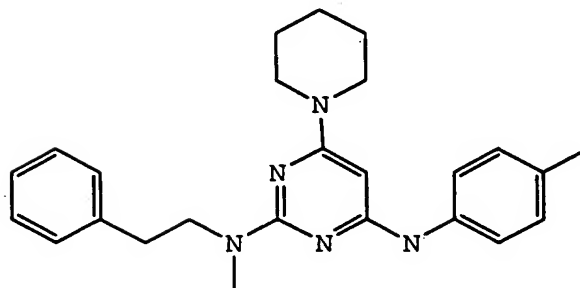


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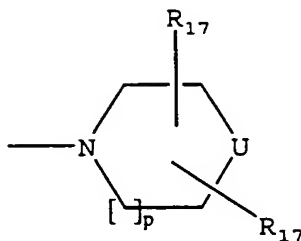




; and



16. The method of claim 11, wherein Y is



17. The method of claim 16, wherein U is NR_{16} .

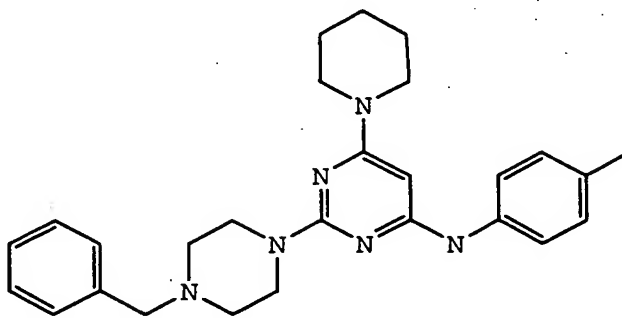
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18. The method of claim 17, wherein R_{16} is $(\text{CH}_2)_m\text{-Z}$.

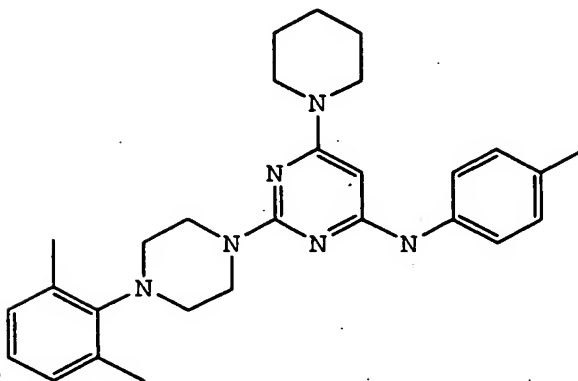
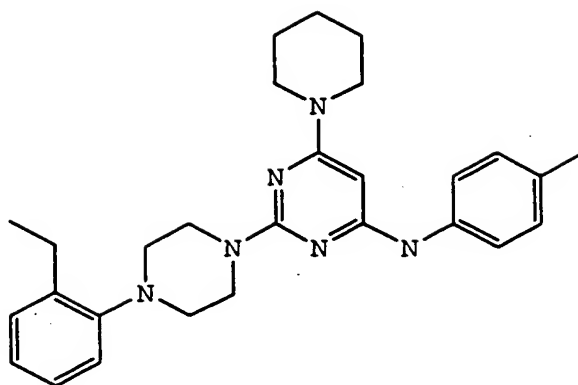
19. The method of claim 18, wherein Z is aryl or heteroaryl.

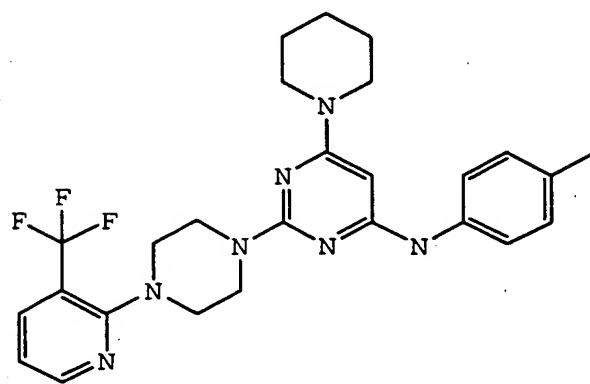
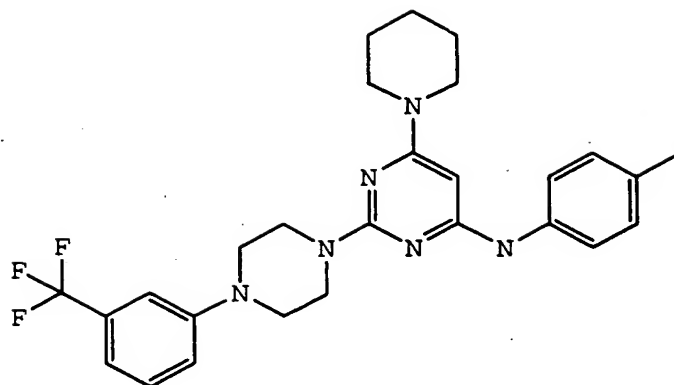
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20. The method of claim 19, wherein the compound is selected from the group consisting of:

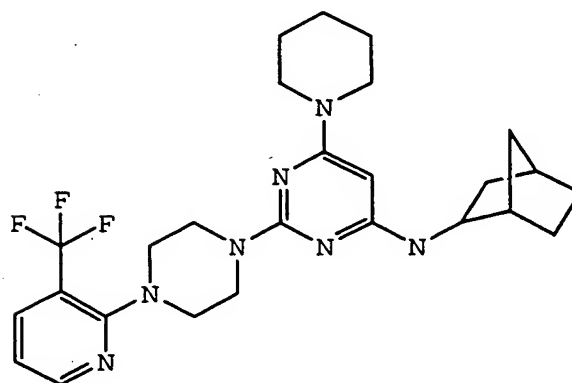


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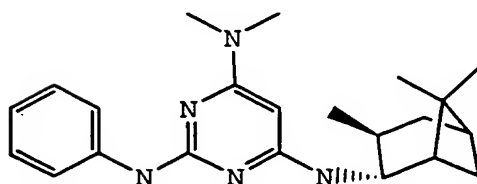
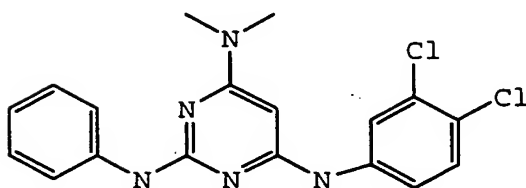
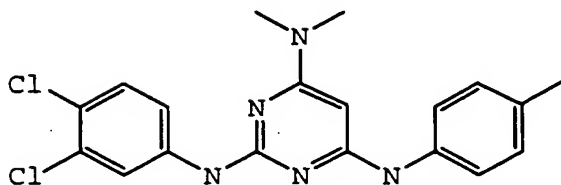


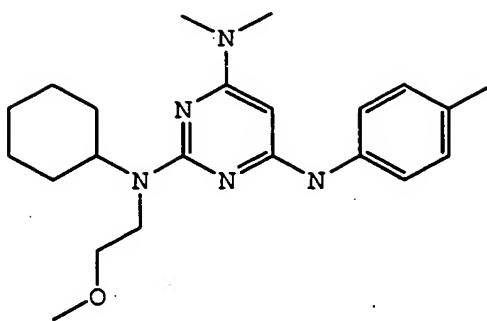


; and

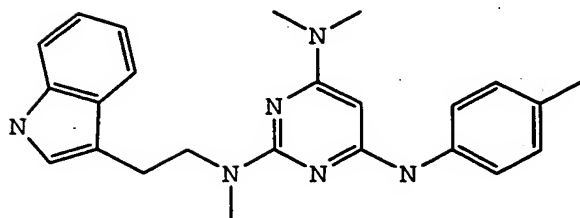


21. The method of claim 12, wherein the compound is selected from the group consisting of:

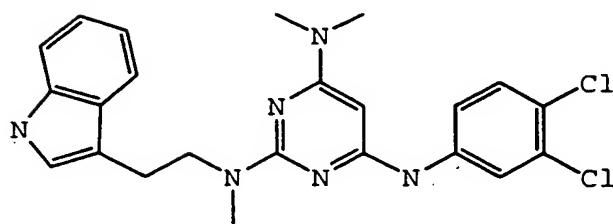




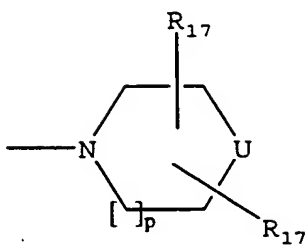
;



; and

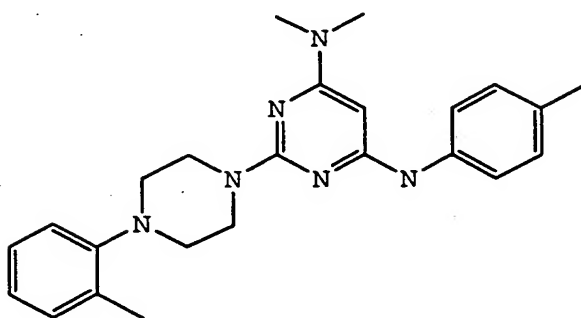


22. The method of claim 12, wherein Y is

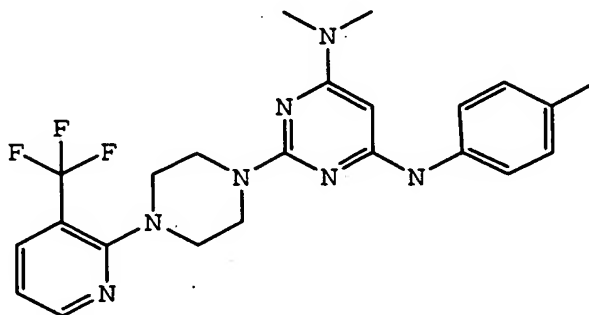


5 23. The method of claim 22, wherein U is NR_{16} .

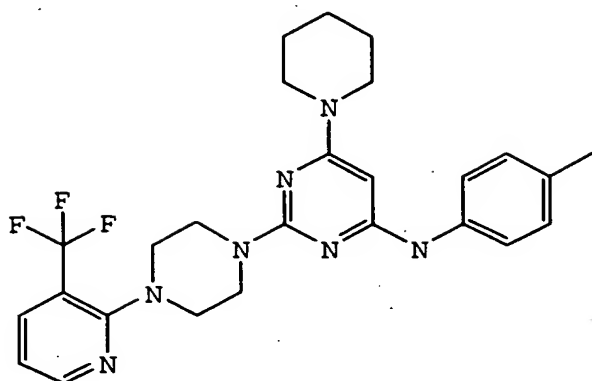
24. The method of claim 23, wherein the compound is



; or

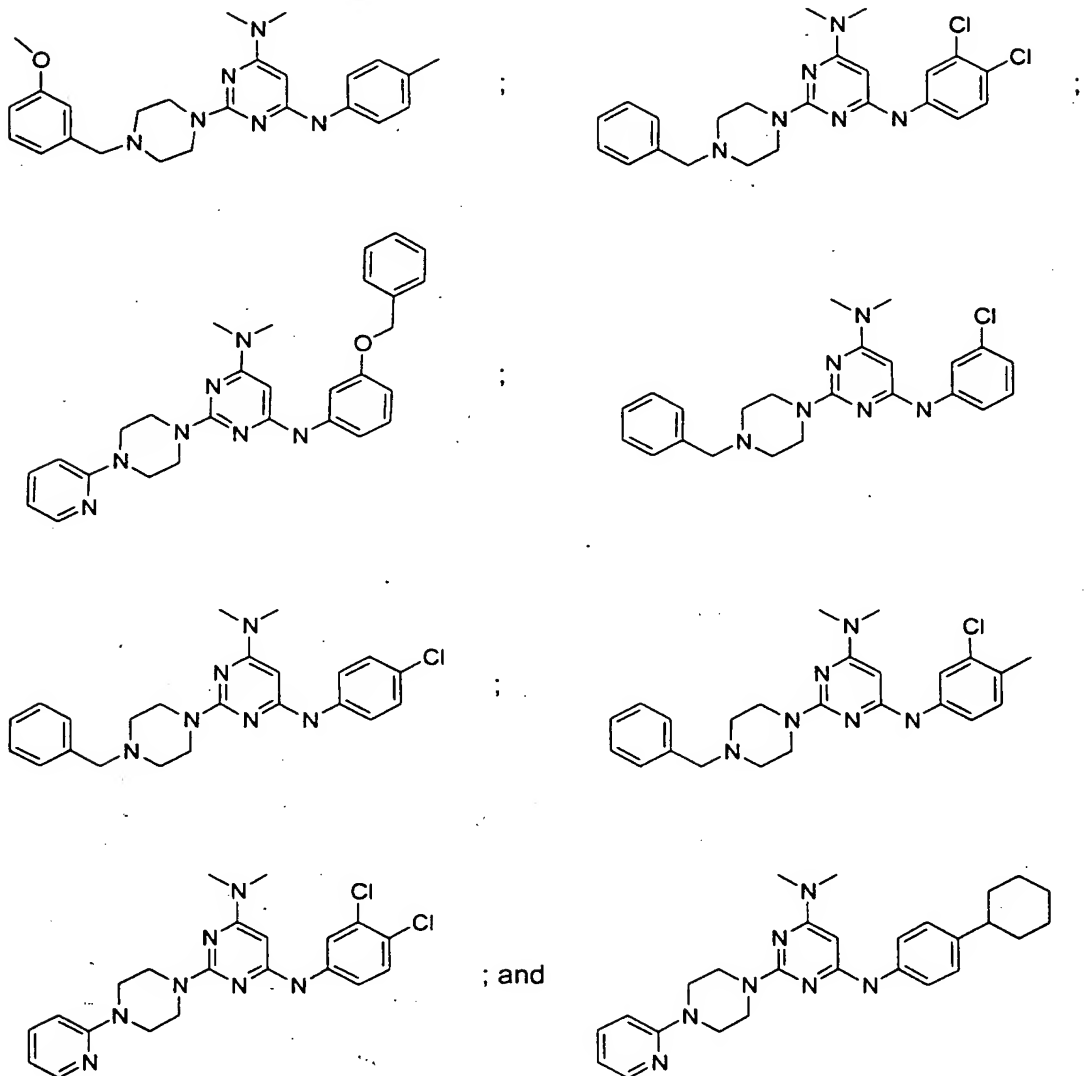


25. The method of claim 19, wherein the compound is



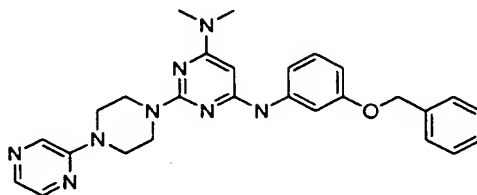
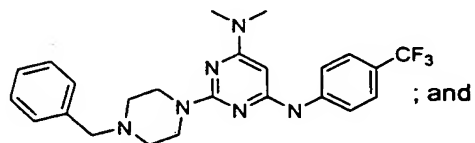
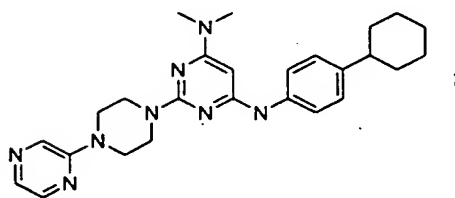
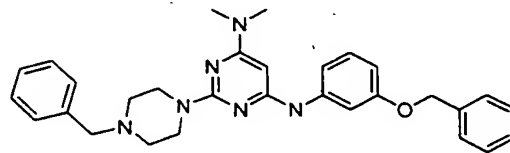
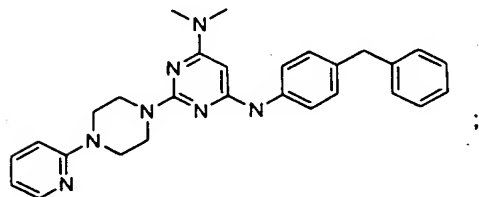
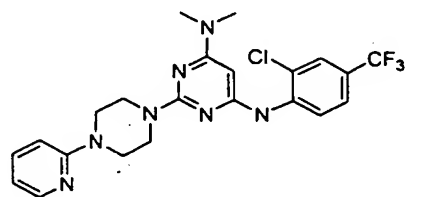
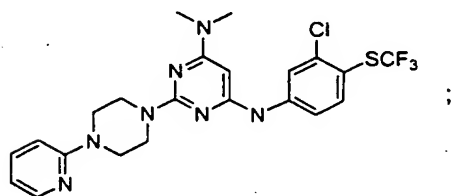
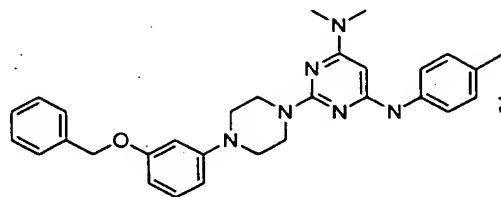
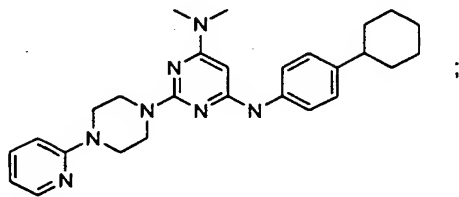
26. The method of claim 23, wherein the compound is selected from the group consisting of:

5



10

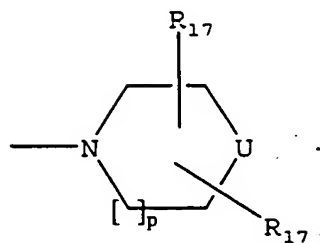
27. The method of claim 23, wherein the compound is selected from the group consisting of:



5

28. The method of claim 3, wherein X is $N(CH_3)_2$.

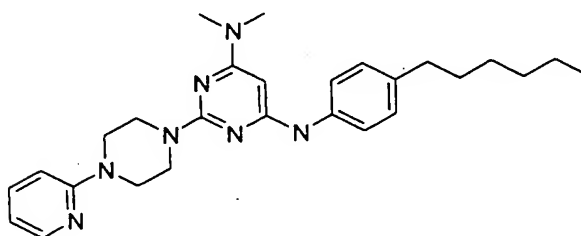
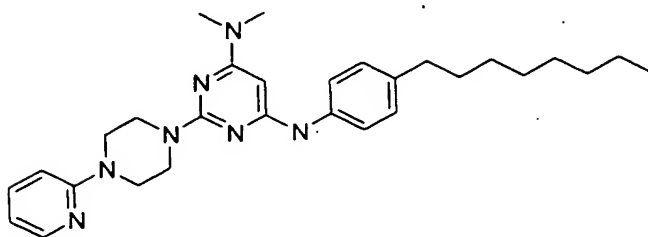
29.. The method of claim 28, wherein Y is



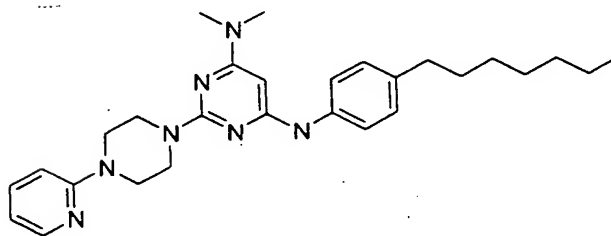
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30. The method of claim 29, wherein R₁₃ is an aryl substituted with a C₁-C₁₀ straight chained alkyl.

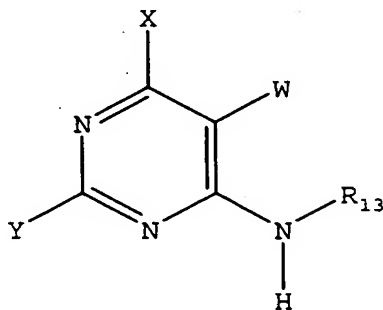
31. The method of claim 30, wherein the compound is selected from a group consisting of:



; and



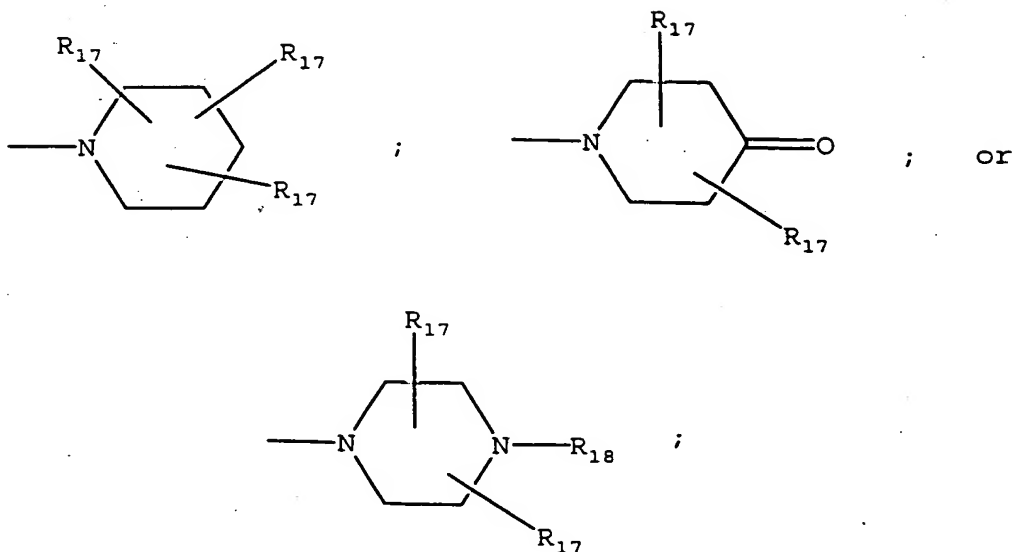
32. A method of treating a subject suffering from anxiety which comprises administering to the subject an amount of compound effective to treat the subject's anxiety wherein the compound has the structure:



5

wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

wherein X is; $\text{NR}_{11}\text{R}_{12}$;



10

wherein R_{11} is H, straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, aryl, or aryl $(\text{C}_1\text{-C}_6)$ alkyl;

wherein R_{12} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl,

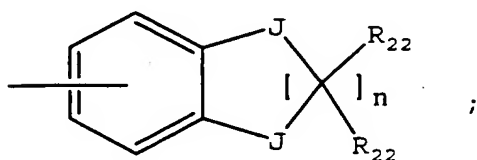
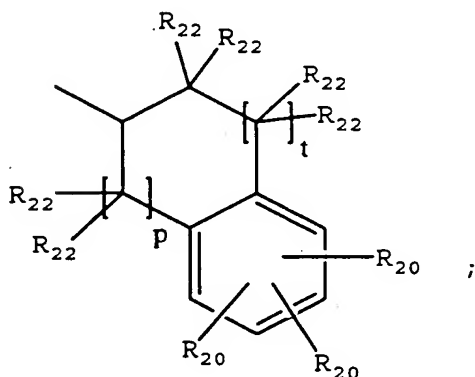
$(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, or $-(\text{CH}_2)_m\text{-Z}$;

wherein R_{13} is a bicyclic alkyl ring system, adamantyl, noradamantyl, $\text{C}_3\text{-C}_{10}$ cycloalkyl, heteroaryl, aryl, aryl($\text{C}_1\text{-C}_6$)alkyl, Q_1 or Q_2 ;

wherein aryl may be substituted with one or more $\text{C}_1\text{-C}_{10}$ straight chained or branched alkyl, aryl, heteroaryl, or $\text{N}(\text{R}_{19})\text{-Z}$;

10

wherein Q_1 is

15 wherein Q_2 is

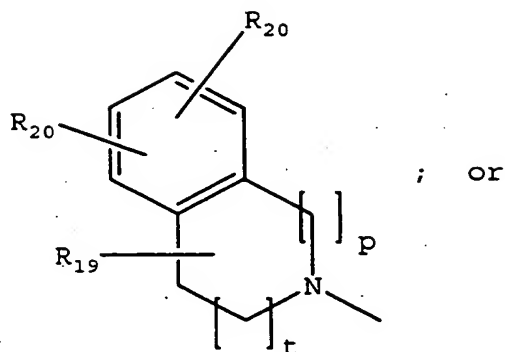
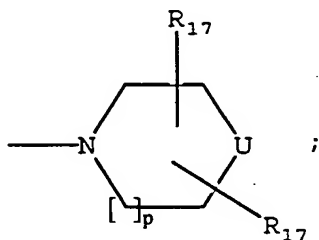
wherein each J is independently O, S, $\text{C}(\text{R}_{22})_2$ or NR_4 ;

20

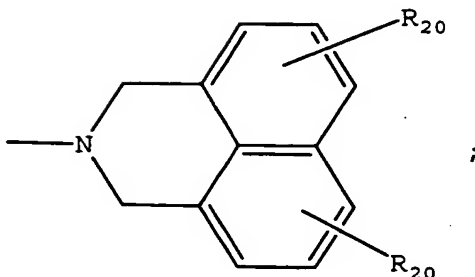
wherein R_4 is H; straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or

branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl, C₅-C₇ cycloalkenyl or aryl;

wherein Y is NR₁₄R₁₅;



5



10 wherein R₁₄ is H, straight chained or branched C₁-C₆ alkyl, (CH₂)_q-O-(CH₂)_m-CH₃, C₃-C₆ cycloalkyl, or (C(R₁₉)₂)_m-Z;

wherein R₁₅ is straight chained or branched C₃-C₆ alkyl, (CH₂)_q-O-(CH₂)_m-CH₃, C₃-C₆ cycloalkyl, (C(R₁₉)₂)_mN(R₁₆)₂ or
 15 (C(R₁₉)₂)_m-Z;

wherein R₁₆ is straight chained or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl,
 20 straight chained or branched C₂-C₇ alkenyl, straight

chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$,
 5 $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or
 branched C_1-C_7 alkyl, straight chained or branched C_1-C_7
 monofluoroalkyl, straight chained or branched C_1-C_7
 polyfluoroalkyl, straight chained or branched C_2-C_7
 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7
 10 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein R_{18} is straight chained or branched C_1-C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

15 wherein each R_{19} is independently H, or straight chained
 or branched C_1-C_6 alkyl;

wherein each R_{20} is independently -H; straight chained or
 branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl;
 20 straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7
 cycloalkyl or C_5-C_7 cycloalkenyl; -F, -Cl, -Br, or -I;
 $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$,
 $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups
 present on adjacent carbon atoms can join together to
 25 form a methylenedioxy group;

wherein each R_{21} is independently -H; straight chained or
 branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl;
 straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7
 30 C_7 cycloalkyl, C_5-C_7 cycloalkenyl, aryl, or aryl(C_1-C_6)alkyl;

wherein each R_{22} is independently H, F, Cl or C_1-C_4 straight chained or branched alkyl;

wherein each m is an integer from 0 to 4 inclusive;

5

wherein each n is an integer from 1 to 4 inclusive;

wherein p is an integer from 0 to 2 inclusive;

10 wherein q is an integer from 2 to 4 inclusive;

wherein t is 1 or 2;

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

15

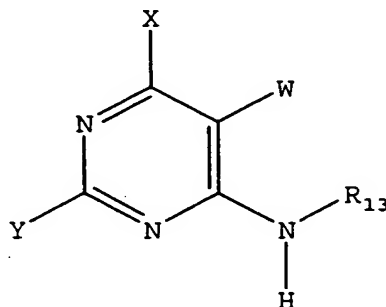
wherein Z is C_3-C_{10} cycloalkyl, C_4-C_7 cyclic ether, C_4-C_7 cyclic thioether, aryl, or heteroaryl; or

a pharmaceutically acceptable salt thereof.

20

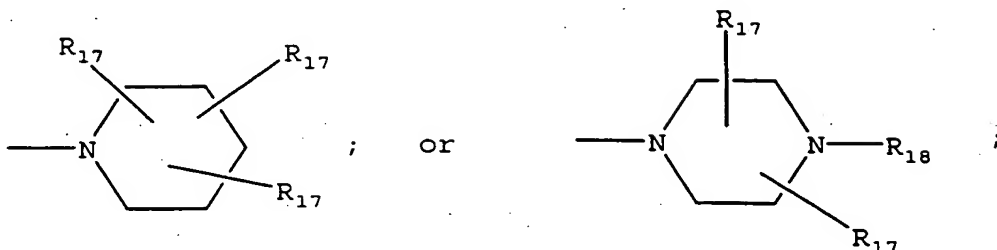
33. A method of treating a subject suffering from anxiety which comprises administering to the subject an amount of compound effective to treat the subject's anxiety wherein the compound has the structure:

25



wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

wherein X is $\text{NR}_{11}\text{R}_{12}$;



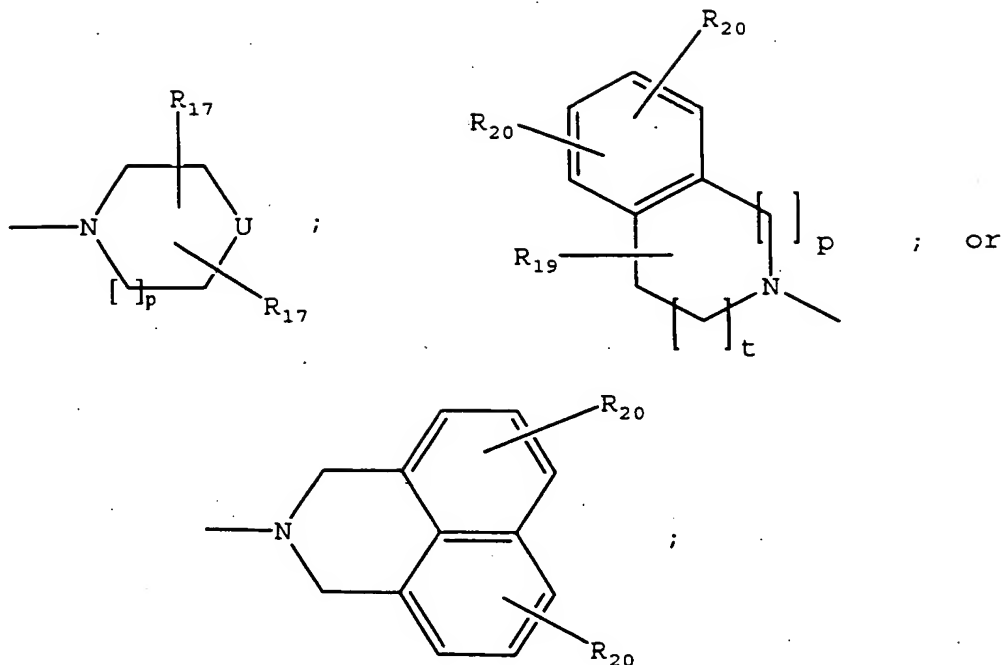
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wherein R_{11} is H, straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, aryl or aryl($\text{C}_1\text{-C}_6$)alkyl;

wherein R_{12} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl,
 10 $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, or $-(\text{CH}_2)_m\text{-Z}$;

wherein R_{13} is a bicyclic alkyl ring system, aryl or aryl($\text{C}_1\text{-C}_6$)alkyl;

15 wherein Y is $\text{NR}_{14}\text{R}_{15}$;



wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

5

wherein R_{15} is straight chained or branched C_3 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

10

wherein Z is C_3 - C_{10} cycloalkyl, aryl, or heteroaryl;

wherein R_{16} is straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

15

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein R_{18} is straight chained or branched C_1 - C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{19} is independently H, or straight chained or branched C_1 - C_6 alkyl;

wherein each R_{20} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

wherein each R_{21} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein p is an integer from 0 to 2 inclusive;

wherein q is an integer from 2 to 4 inclusive;

5

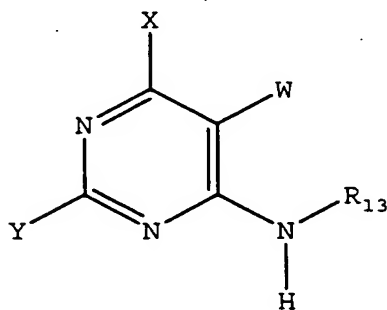
wherein t is 1 or 2; or

a pharmaceutically acceptable salt thereof.

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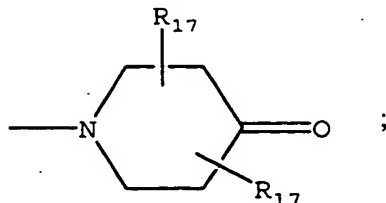
34. A method of treating a subject suffering from anxiety which comprises administering to the subject an amount of compound effective to treat the subject's anxiety wherein the compound has the structure:

15



wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

20 wherein X is $N(CH_3)_2$ or

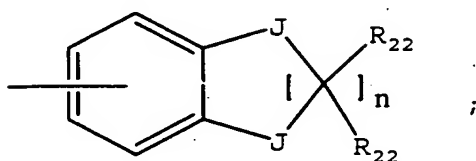


wherein R_{13} is an aryl, adamantyl, noradamantyl, C_3 - C_{10} cycloalkyl, heteroaryl, Q_1 or Q_2 ;

- 5 wherein aryl may be substituted with one or more C_1 - C_{10} straight chained or branched alkyl, aryl, heteroaryl, or $N(R_{19})-Z$;

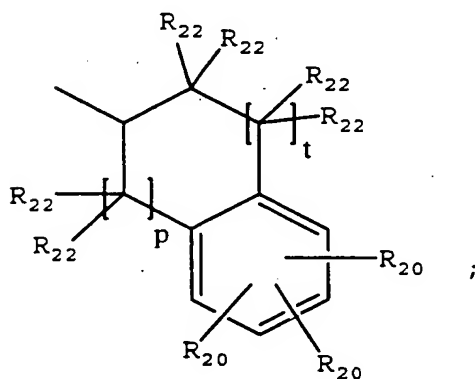
wherein Q_1 is

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wherein Q_2 is

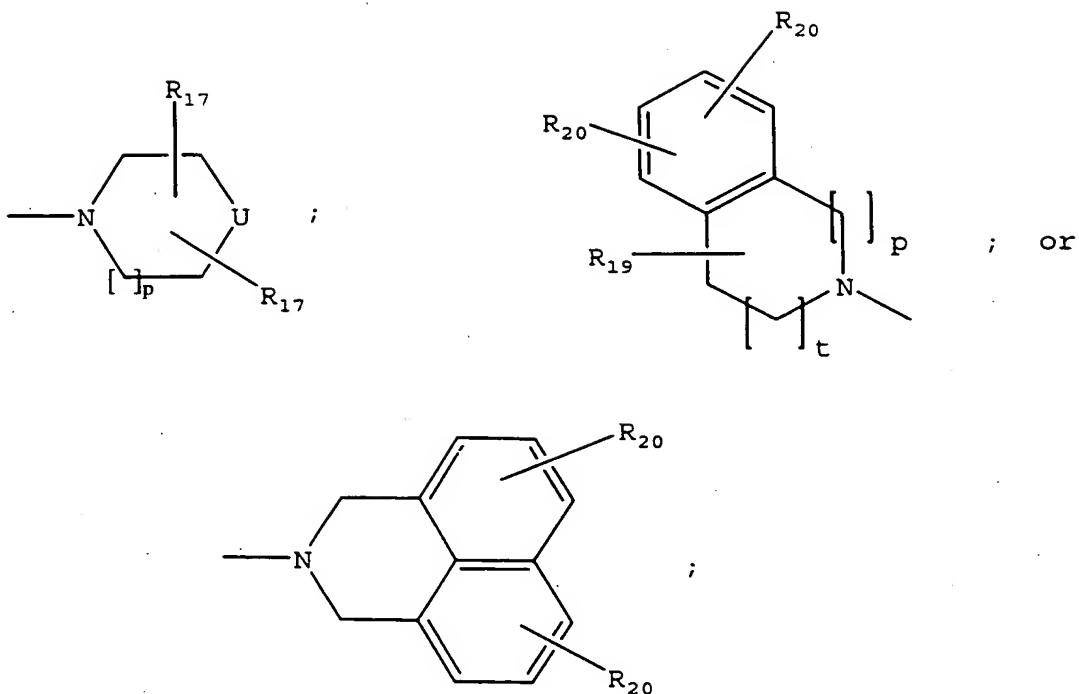
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wherein each J is independently O , S , $C(R_{22})_2$ or NR_4 ;

- 20 wherein R_4 is $-H$; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl or aryl;

wherein Y is $\text{NR}_{14}\text{R}_{15}$;



5

wherein R_{14} is H, straight chained or branched $\text{C}_1\text{-C}_6$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, $\text{C}_3\text{-C}_6$ cycloalkyl, or $(\text{C}(\text{R}_{19})_2)_m\text{-Z}$;

wherein R_{15} is straight chained or branched $\text{C}_3\text{-C}_6$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, $\text{C}_3\text{-C}_6$ cycloalkyl, or $(\text{C}(\text{R}_{19})_2)_m\text{-Z}$;

10

wherein U is O, -NR_{16} , S, $\text{C}(\text{R}_{17})_2$, or $\text{-NSO}_2\text{R}_{16}$;

wherein Z is $\text{C}_3\text{-C}_{10}$ cycloalkyl, aryl, or heteroaryl;

15

wherein R_{16} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, straight chained or branched $\text{C}_1\text{-C}_7$ monofluoroalkyl, straight chained or branched $\text{C}_1\text{-C}_7$ polyfluoroalkyl,

straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

- 5 wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1-C_7 alkyl, straight chained or branched C_1-C_7 monofluoroalkyl, straight chained or branched C_1-C_7 polyfluoroalkyl, straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;
- 10

wherein R_{18} is straight chained or branched C_1-C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

15

wherein each R_{19} is independently H, or straight chained or branched C_1-C_6 alkyl;

- wherein each R_{20} is independently -H; straight chained or branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7 cycloalkyl or C_5-C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;
- 20
- 25

- wherein each R_{21} is independently -H; straight chained or branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7 cycloalkyl, C_5-C_7 cycloalkenyl, aryl or aryl(C_1-C_6)alkyl;
- 30

wherein each R_{22} is independently H, F, Cl or C_1 - C_4 straight chained or branched alkyl;

wherein each m is an integer from 0 to 4 inclusive;

5

wherein each n is an integer from 1 to 4 inclusive;

wherein p is an integer from 0 to 2 inclusive;

10 wherein q is an integer from 2 to 4 inclusive;

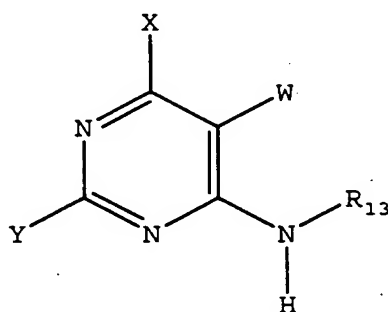
wherein t is 1 or 2; or

a pharmaceutically acceptable salt thereof.

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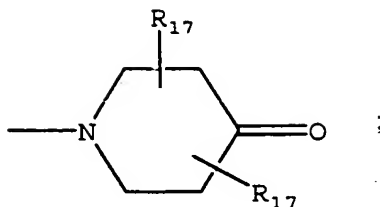
35. A method of treating a subject suffering from anxiety which comprises administering to the subject an amount of compound effective to treat the subject's anxiety wherein the compound has the structure:

20



wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

25 wherein X is $N(CH_3)_2$ or



wherein R_{13} is a bicyclic alkyl ring system, aryl or aryl(C_1 - C_6)alkyl;

5

wherein Y is $NR_{14}R_{15}$;

wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

10

wherein R_{15} is $(C(R_{19})_2)_m-N(R_{16})_2$;

wherein Z is C_3 - C_{10} cycloalkyl, aryl, or heteroaryl;

15

wherein R_{16} is straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, -
 20 $(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

25

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein each R_{1i} is independently H, or straight chained or branched C_1-C_6 alkyl;

5 wherein each R_{2i} is independently -H; straight chained or branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7 cycloalkyl, C_5-C_7 cycloalkenyl, aryl or aryl(C_1-C_6)alkyl;

10

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

15 wherein q is an integer from 2 to 4 inclusive; or

a pharmaceutically acceptable salt thereof.

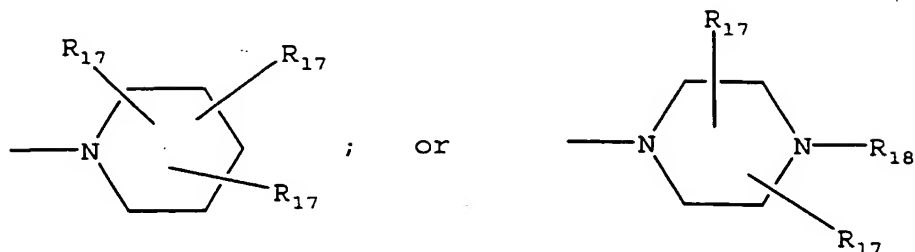
20 36. The method of claim 32, 33, 34 or 35, wherein the compound is enantiomerically and diasteriomERICALLY pure.

25 37. The method of claim 32, 33, 34 or 35, wherein the compound is enantiomerically or diasteriomERICALLY pure.

38. The method of claim 32, 33, 34 or 35, wherein the compound can be administered orally.

30

39. The method of claim 32, wherein X is:

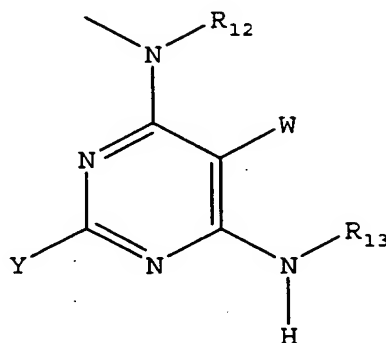


5

40. The method of claim 32, wherein X is $\text{NR}_{11}\text{R}_{12}$ and R_{11} is H or straight chained or branched $\text{C}_1\text{-C}_7$ alkyl.

41. The method of claim 40, wherein the compound has the structure:

10



42. The method of claim 39, wherein R_{13} is a bicyclic alkyl ring system, cyclohexyl or aryl.

15

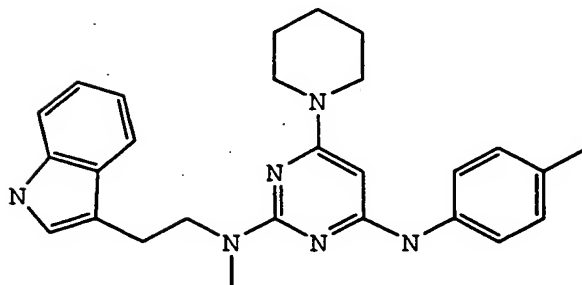
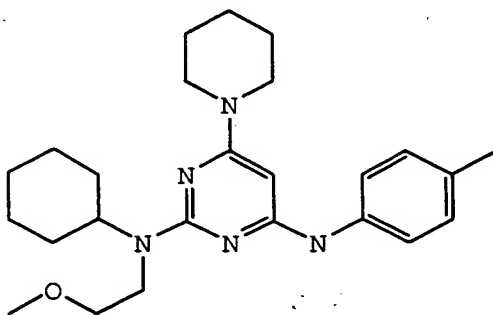
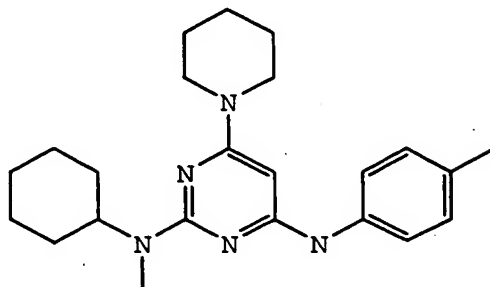
43. The method of claim 41, wherein R_{13} is a bicyclic alkyl ring system, cyclohexyl or aryl.

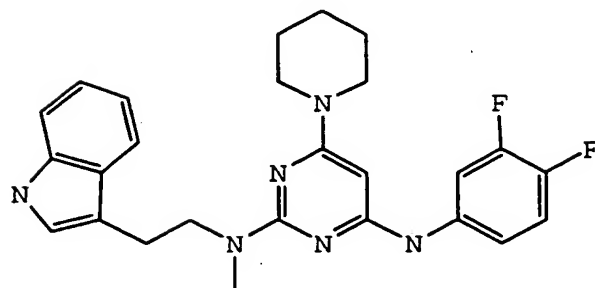
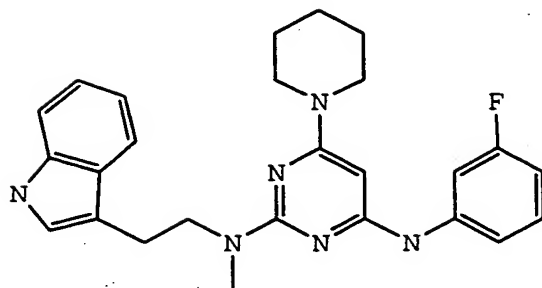
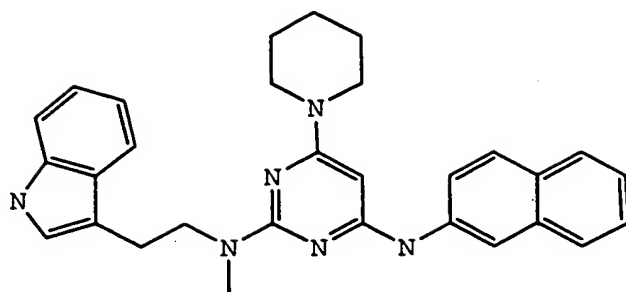
44. The method of claim 42, wherein R_{14} is H, straight chained or branched $\text{C}_1\text{-C}_6$ alkyl or $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$.

20

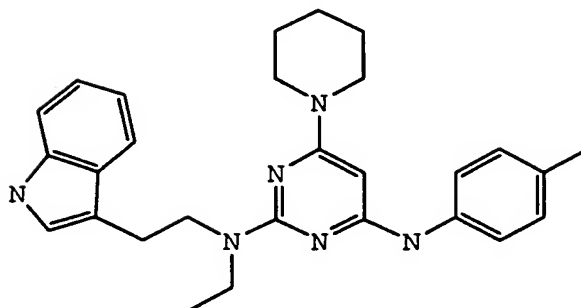
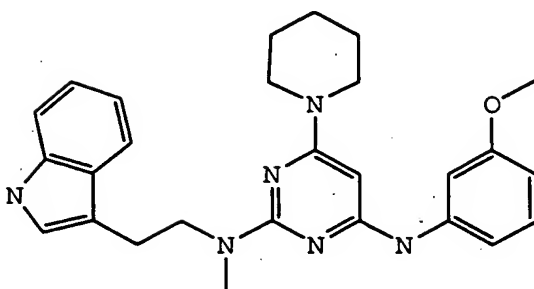
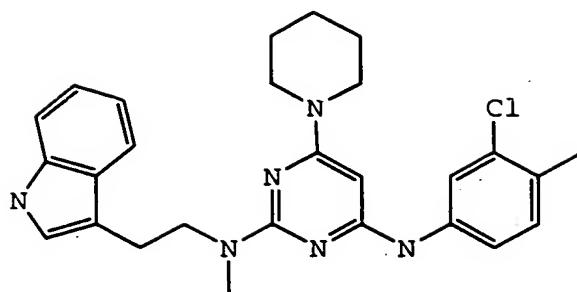
45. The method of claim 43, wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl or $(CH_2)_q-O-(CH_2)_m-CH_3$.

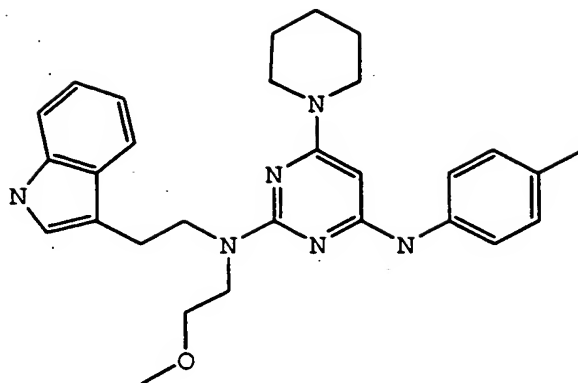
5 46. The method of claim 44, wherein the compound is selected from the group consisting of:



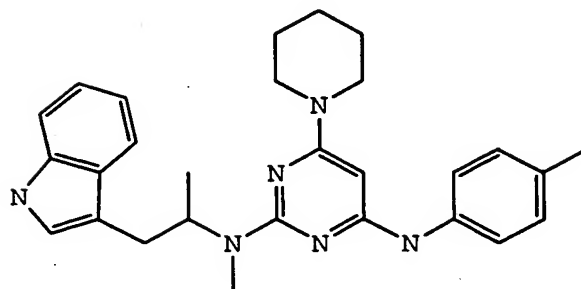


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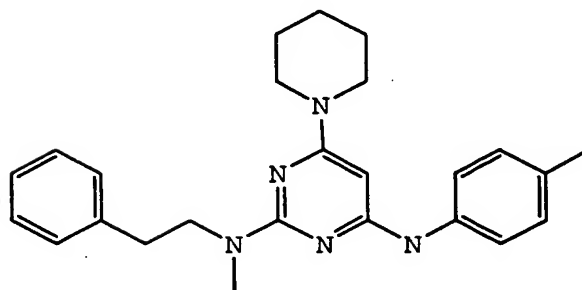




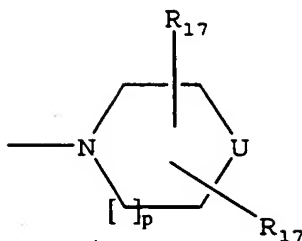
;



; and



47. The method of claim 42, wherein Y is

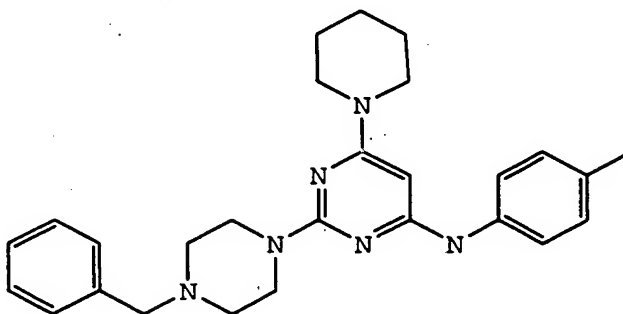


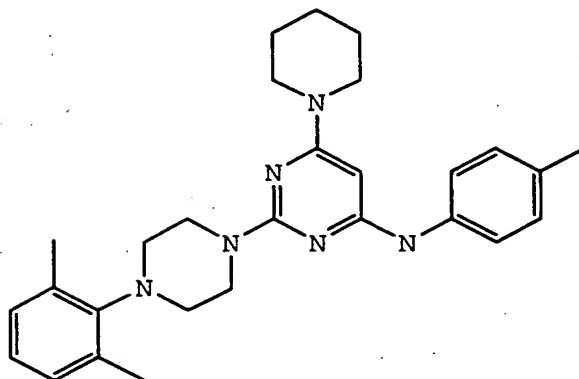
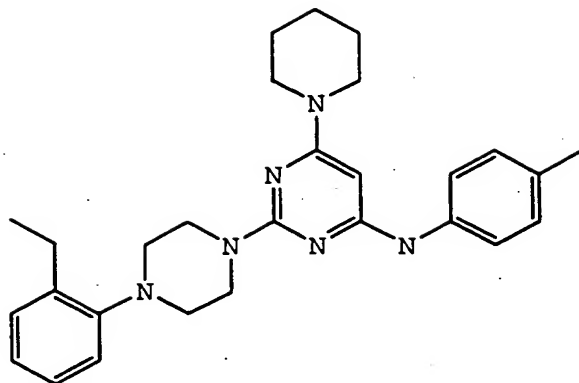
5 48. The method of claim 47, wherein U is NR_{16} .

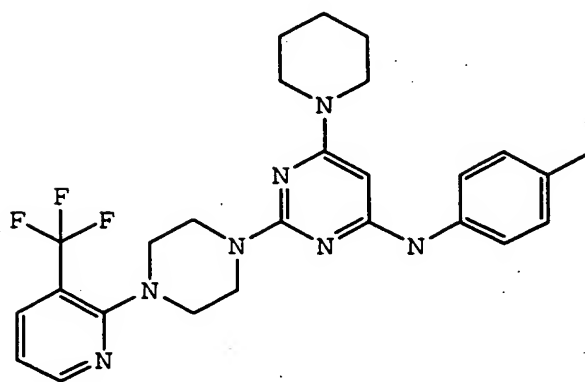
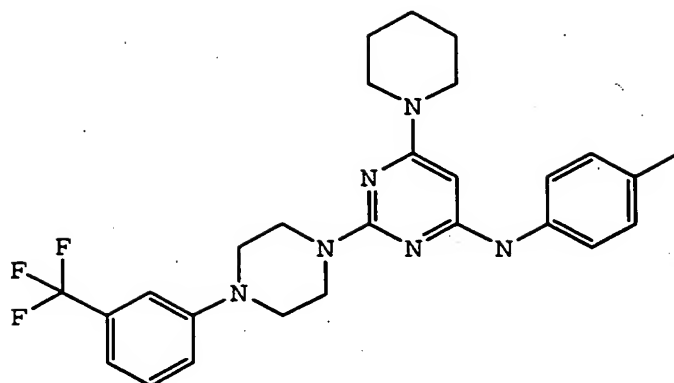
49. The method of claim 48, wherein R_{16} is $(\text{CH}_2)_m\text{-Z}$.

50. The method of claim 49, wherein Z is aryl or
10 heteroaryl.

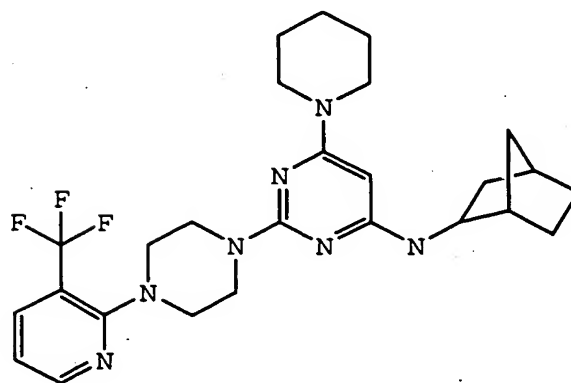
51. The method of claim 50, wherein the compound is selected from the group consisting of:



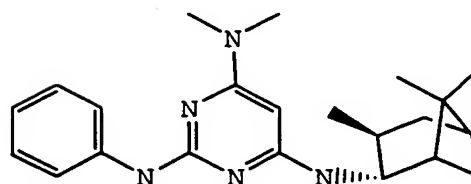
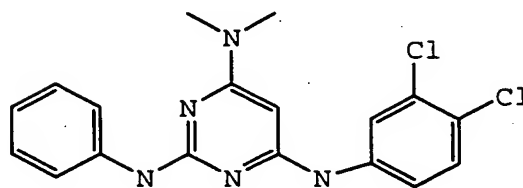
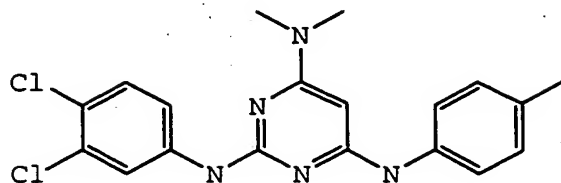


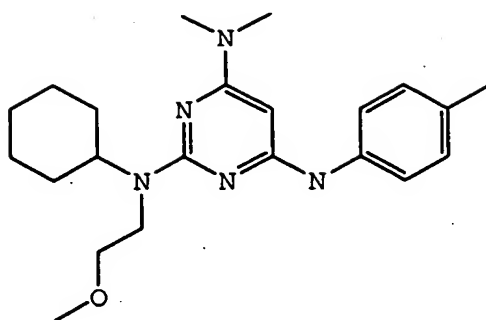


; and

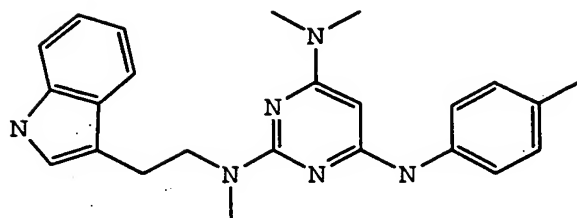


52. The method of claim 43, wherein the compound is selected from the group consisting of:

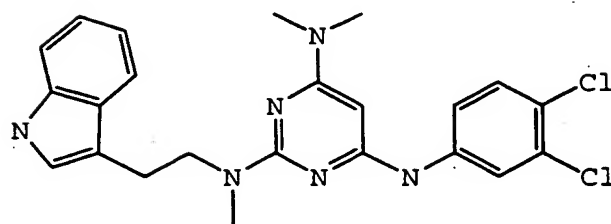




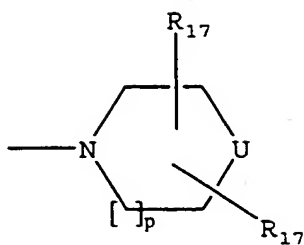
;



; and

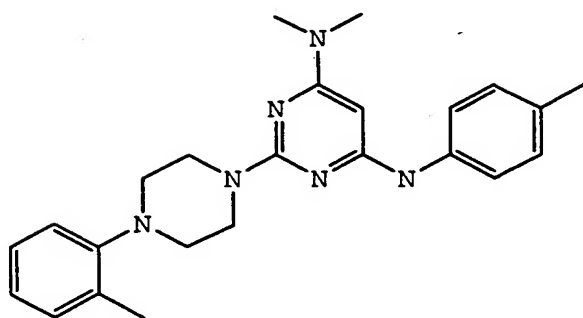


53. The method of claim 43, wherein Y is

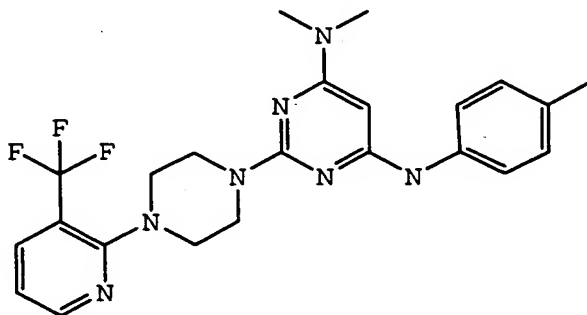


5 54. The method of claim 53, wherein U is NR_{16} .

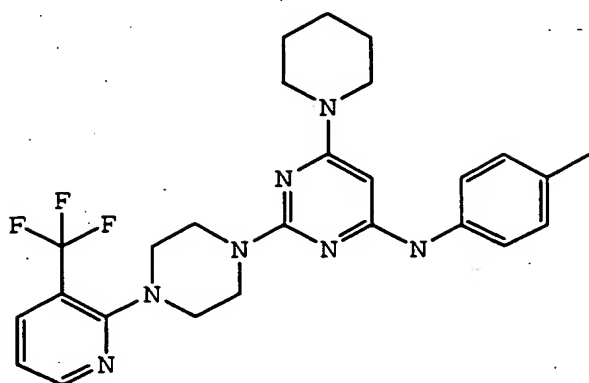
55. The method of claim 54, wherein the compound is



; or

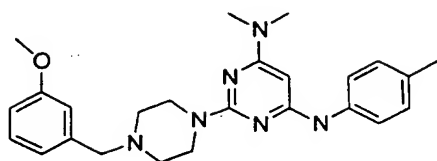


56. The method of claim 50, wherein the compound is

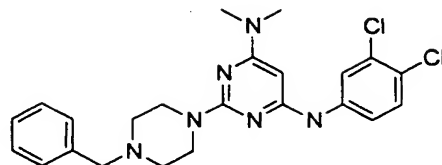


57. The method of claim 54, wherein the compound is selected from the group consisting of:

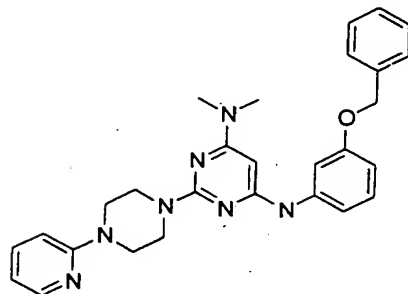
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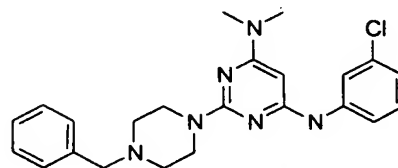
;



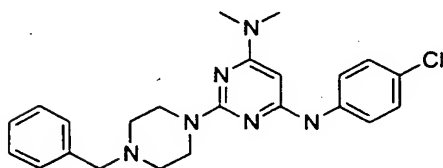
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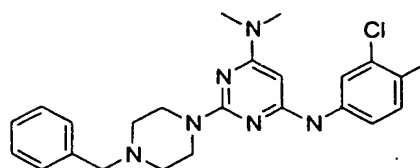
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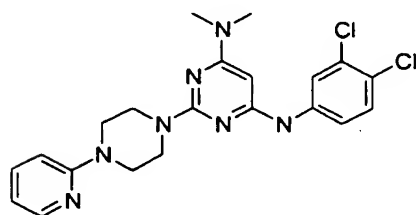
;



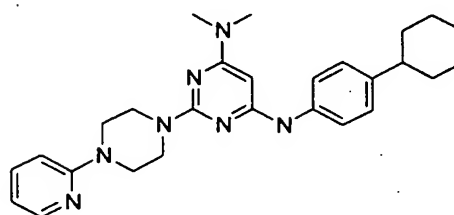
;



;

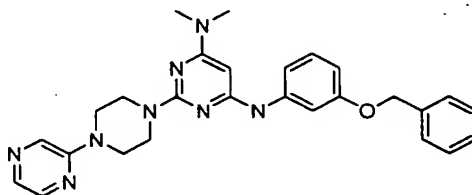
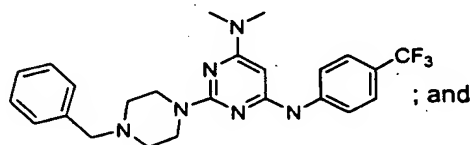
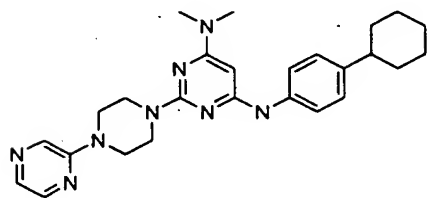
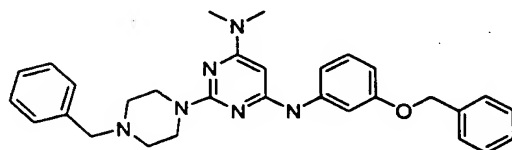
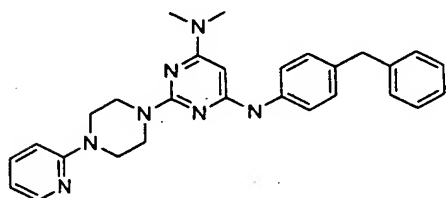
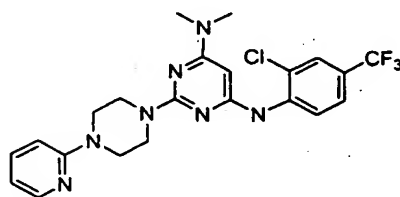
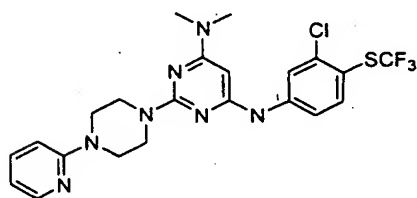
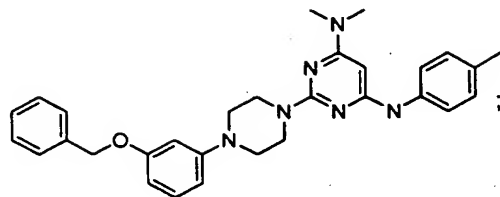
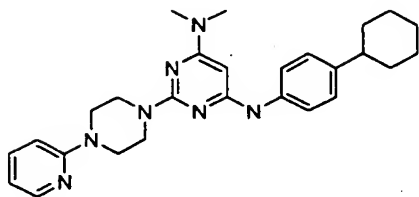


; and



10

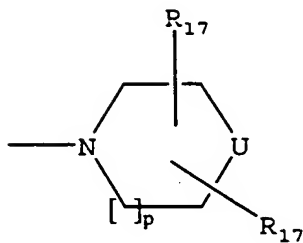
58. The method of claim 54, wherein the compound is selected from the group consisting of:



5

59. The method of claim 34, wherein X is $N(CH_3)_2$.

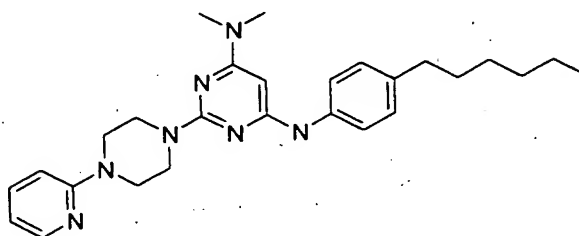
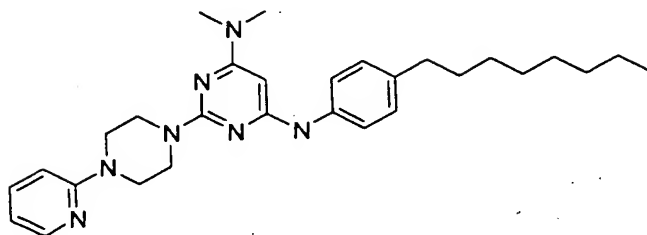
60. The method of claim 59, wherein Y is



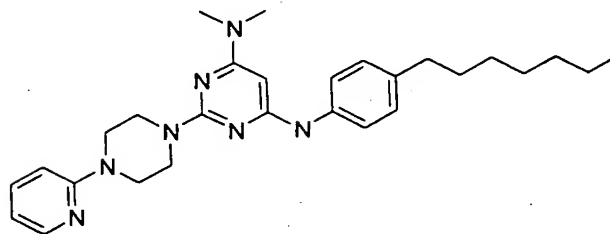
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61. The method of claim 60, wherein R₁₃ is an aryl substituted with a C₁-C₁₀ straight chained alkyl.

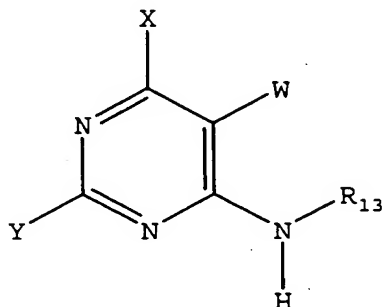
62. The method of claim 61, wherein the compound is selected from a group consisting of:



; and

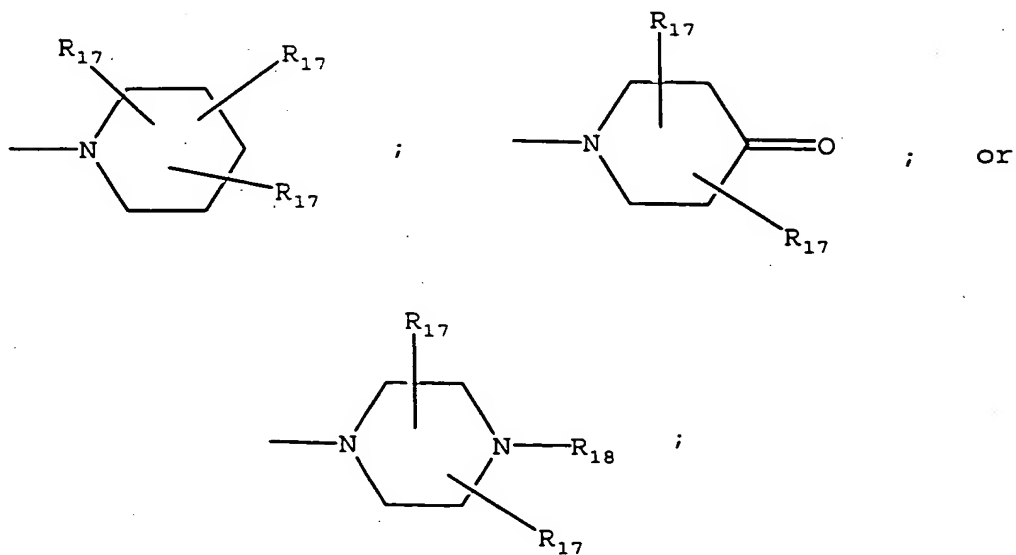


63. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound having the structure:



- 5 wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

wherein X is; $\text{NR}_{11}\text{R}_{12}$;



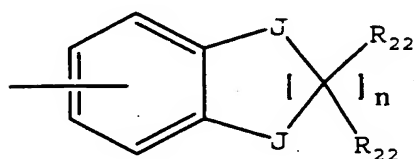
- 10 wherein R_{11} is H, straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, aryl, or aryl $(\text{C}_1\text{-C}_6)$ alkyl;

wherein R_{12} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, or $-(\text{CH}_2)_m\text{-Z}$;

wherein R_{13} is a bicyclic alkyl ring system, adamantyl, noradamantyl, C_3 - C_{10} cycloalkyl, heteroaryl, aryl, aryl(C_1 - C_6)alkyl, Q_1 or Q_2 ;

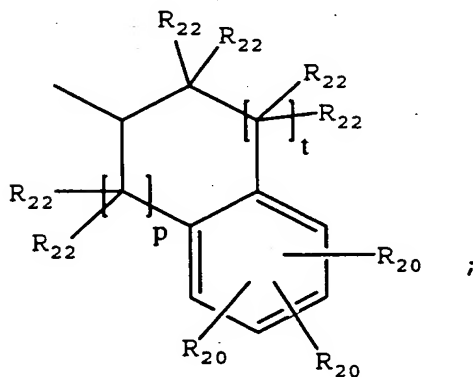
5

wherein aryl may be substituted with one or more C_1 - C_{10} straight chained or branched alkyl, aryl, heteroaryl, or $N(R_{19})-Z$;

10 wherein Q_1 is

wherein Q_2 is

15

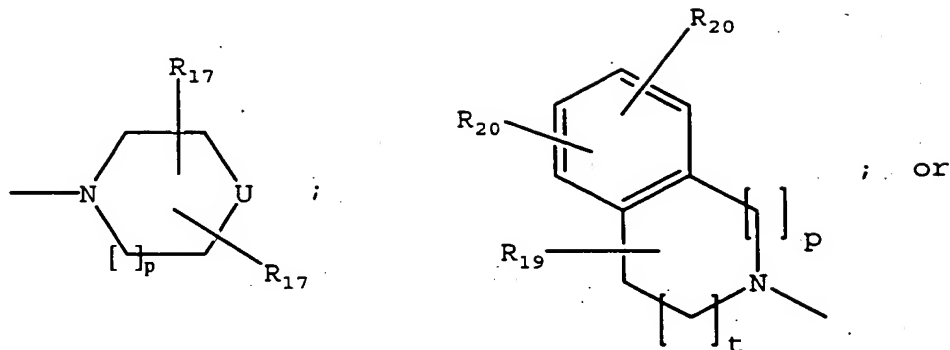


wherein each J is independently O, S, $C(R_{22})_2$ or NR_4 ;

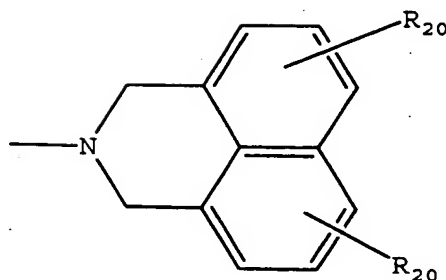
20 wherein R_4 is H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7

cycloalkenyl or aryl;

wherein Y is $\text{NR}_{14}\text{R}_{15}$;



5



wherein R_{14} is H, straight chained or branched $\text{C}_1\text{-C}_6$ alkyl,
 10 $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, $\text{C}_3\text{-C}_6$ cycloalkyl, or $(\text{C}(\text{R}_{19})_2)_m\text{-Z}$;

wherein R_{15} is straight chained or branched $\text{C}_3\text{-C}_6$ alkyl,
 $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, $\text{C}_3\text{-C}_6$ cycloalkyl, $(\text{C}(\text{R}_{19})_2)_m\text{N}(\text{R}_{16})_2$ or
 $(\text{C}(\text{R}_{19})_2)_m\text{-Z}$;

15

wherein R_{16} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl,
 straight chained or branched $\text{C}_1\text{-C}_7$ monofluoroalkyl,
 straight chained or branched $\text{C}_1\text{-C}_7$ polyfluoroalkyl,
 straight chained or branched $\text{C}_2\text{-C}_7$ alkenyl, straight
 20 chained or branched $\text{C}_2\text{-C}_7$ alkynyl, $\text{C}_5\text{-C}_7$ cycloalkenyl, -

$(\text{CH}_2)_m\text{-Z}$, or $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$;

wherein each R_{17} is independently H; $-\text{OR}_{21}$, $-\text{OCOR}_{21}$, $-\text{COR}_{21}$,
 $-\text{NCOR}_{21}$, $-\text{N}(\text{R}_{21})_2$, $-\text{CON}(\text{R}_{21})_2$, $-\text{COOR}_{21}$, straight chained or
 5 branched $\text{C}_1\text{-C}_7$ alkyl, straight chained or branched $\text{C}_1\text{-C}_7$
 monofluoroalkyl, straight chained or branched $\text{C}_1\text{-C}_7$
 polyfluoroalkyl, straight chained or branched $\text{C}_2\text{-C}_7$
 alkenyl, straight chained or branched $\text{C}_2\text{-C}_7$ alkynyl, $\text{C}_5\text{-C}_7$
 cycloalkenyl, $-(\text{CH}_2)_m\text{-Z}$, or $(\text{CH}_2)_n\text{-O-}(\text{CH}_2)_m\text{-CH}_3$;

10

wherein R_{18} is straight chained or branched $\text{C}_1\text{-C}_6$ alkyl, $-(\text{CH}_2)_m\text{-Z}$, or $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$;

wherein each R_{19} is independently H, or straight chained
 15 or branched $\text{C}_1\text{-C}_6$ alkyl;

wherein each R_{20} is independently -H; straight chained or
 branched $\text{C}_1\text{-C}_7$ alkyl, monofluoroalkyl or polyfluoroalkyl;
 straight chained or branched $\text{C}_2\text{-C}_7$ alkenyl or alkynyl; $\text{C}_3\text{-C}_7$
 20 C_7 cycloalkyl or $\text{C}_5\text{-C}_7$ cycloalkenyl; -F, -Cl, -Br, or -I;
 $-\text{NO}_2$; $-\text{N}_3$; $-\text{CN}$; $-\text{OR}_{21}$, $-\text{OCOR}_{21}$, $-\text{COR}_{21}$, $-\text{NCOR}_{21}$, $-\text{N}(\text{R}_{21})_2$, $-\text{CON}(\text{R}_{21})_2$, or $-\text{COOR}_{21}$; aryl or heteroaryl; or two R_{20} groups
 present on adjacent carbon atoms can join together to
 form a methylenedioxy group;

25

wherein each R_{21} is independently -H; straight chained or
 branched $\text{C}_1\text{-C}_7$ alkyl, monofluoroalkyl or polyfluoroalkyl;
 straight chained or branched $\text{C}_2\text{-C}_7$ alkenyl or alkynyl; $\text{C}_3\text{-C}_7$
 C_7 cycloalkyl, $\text{C}_5\text{-C}_7$ cycloalkenyl, aryl, or aryl($\text{C}_1\text{-C}_6$)alkyl;
 30

wherein each R_{22} is independently H, F, Cl or $\text{C}_1\text{-C}_4$

straight chained or branched alkyl;

wherein each m is an integer from 0 to 4 inclusive;

5 wherein each n is an integer from 1 to 4 inclusive;

wherein p is an integer from 0 to 2 inclusive;

wherein q is an integer from 2 to 4 inclusive;

10

wherein t is 1 or 2;

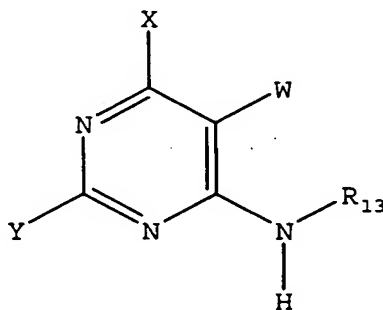
wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

15 wherein Z is C_3-C_{10} cycloalkyl, C_4-C_7 cyclic ether, C_4-C_7 cyclic thioether, aryl, or heteroaryl; or

a pharmaceutically acceptable salt thereof.

20

64. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound having the structure:

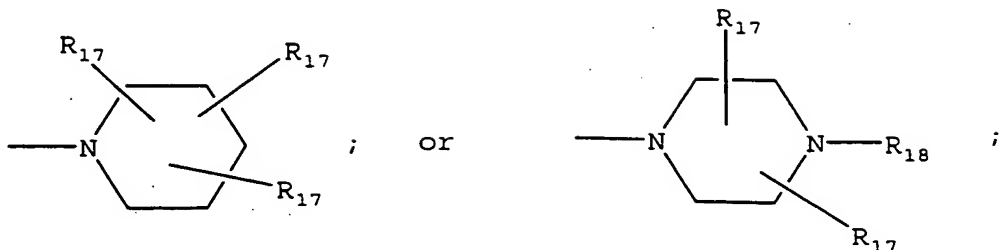


25

wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl,

propyl, methoxy or ethoxy;

wherein X is $\text{NR}_{11}\text{R}_{12}$;



5 wherein R_{11} is H, straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, aryl or aryl($\text{C}_1\text{-C}_6$)alkyl;

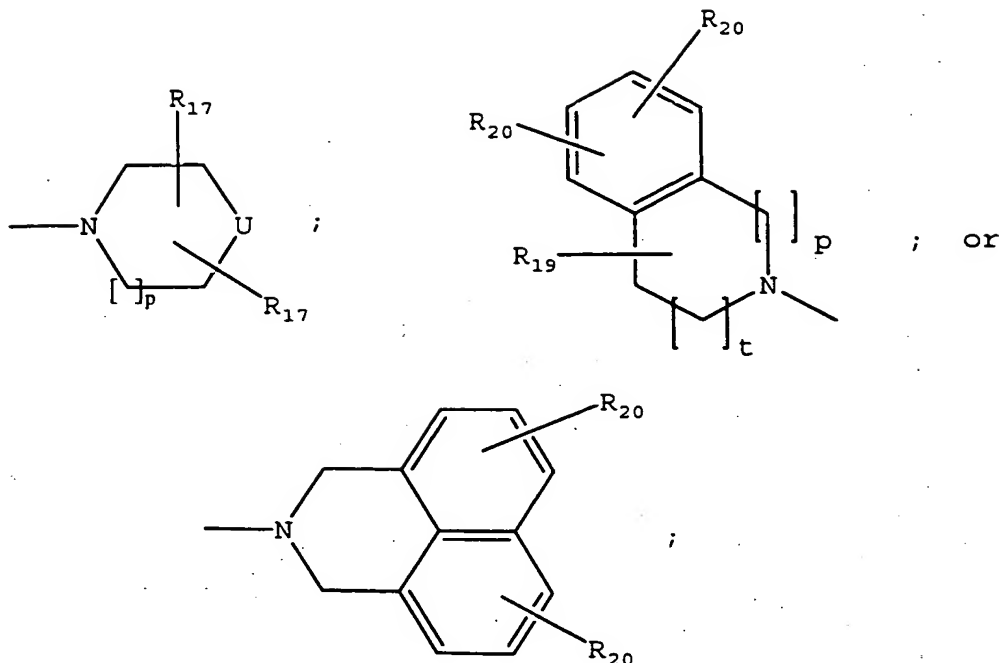
wherein R_{12} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, or $-(\text{CH}_2)_m\text{-Z}$;

10

wherein R_{13} is a bicyclic alkyl ring system, aryl or aryl($\text{C}_1\text{-C}_6$)alkyl;

wherein Y is $\text{NR}_{14}\text{R}_{15}$;

15



wherein R₁₄ is H, straight chained or branched C₁-C₆ alkyl, (CH₂)_q-O-(CH₂)_m-CH₃, C₃-C₆ cycloalkyl, or (C(R₁₉)₂)_m-Z;

5

wherein R₁₅ is straight chained or branched C₃-C₆ alkyl, (CH₂)_q-O-(CH₂)_m-CH₃, C₃-C₆ cycloalkyl, or (C(R₁₉)₂)_m-Z;

wherein U is O, -NR₁₆, S, C(R₁₇)₂, or -NSO₂R₁₆;

10

wherein Z is C₃-C₁₀ cycloalkyl, aryl, or heteroaryl;

wherein R₁₆ is straight chained or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl, straight chained or branched C₂-C₇ alkenyl, straight chained or branched C₂-C₇ alkynyl, C₅-C₇ cycloalkenyl, - (CH₂)_m-Z, or (CH₂)_q-O-(CH₂)_m-CH₃;

15

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein R_{18} is straight chained or branched C_1 - C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{19} is independently H, or straight chained or branched C_1 - C_6 alkyl;

wherein each R_{20} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

wherein each R_{21} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein p is an integer from 0 to 2 inclusive;

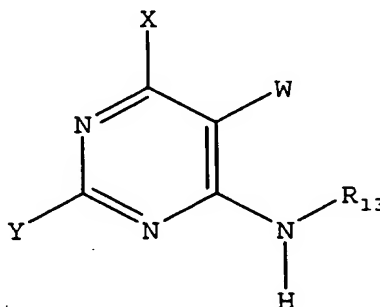
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wherein q is an integer from 2 to 4 inclusive;

wherein t is 1 or 2; or

10 a pharmaceutically acceptable salt thereof.

65. A pharmaceutical composition comprising a
pharmaceutically acceptable carrier and a compound
15 having the structure:

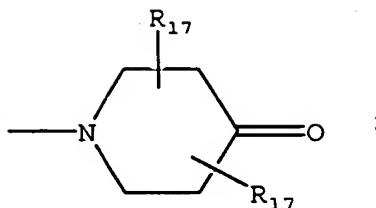


20

wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

wherein X is N(CH₃)₂ or

25

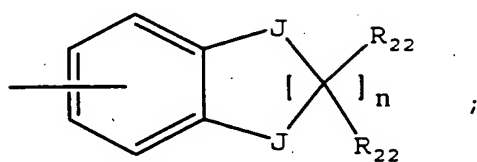


wherein R_{13} is an aryl, adamantyl, noradamantyl, C_3 - C_{10} cycloalkyl, heteroaryl, Q_1 or Q_2 ;

5

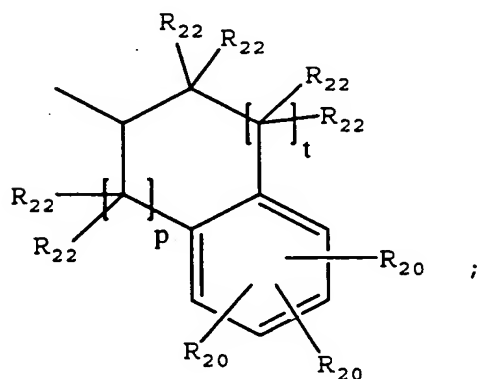
wherein aryl may be substituted with one or more C_1 - C_{10} straight chained or branched alkyl, aryl, heteroaryl, or $N(R_{19})-Z$;

10 wherein Q_1 is



wherein Q_2 is

15

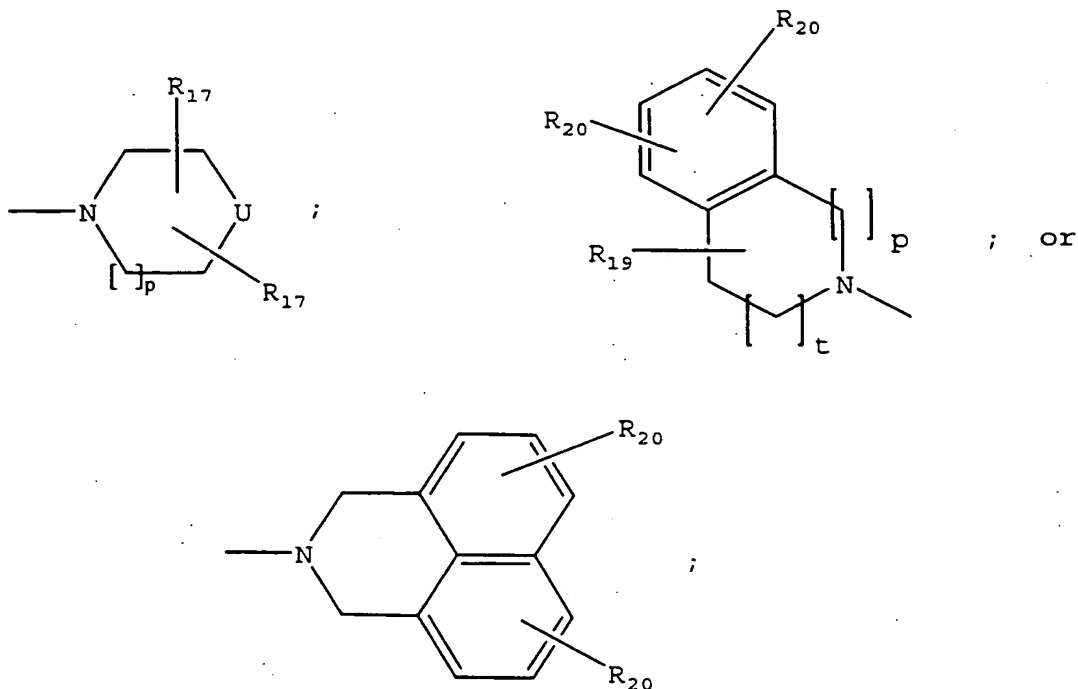


wherein each J is independently O , S , $C(R_{22})_2$ or NR_4 ;

wherein R_4 is -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl or aryl;

5

wherein Y is $NR_{14}R_{15}$;



10 wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

wherein R_{15} is straight chained or branched C_3 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

15

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

wherein Z is C_3 - C_{10} cycloalkyl, aryl, or heteroaryl;

wherein R_{16} is straight chained or branched C_1-C_7 alkyl, straight chained or branched C_1-C_7 monofluoroalkyl, straight chained or branched C_1-C_7 polyfluoroalkyl,
 5 straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$,
 10 $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1-C_7 alkyl, straight chained or branched C_1-C_7 monofluoroalkyl, straight chained or branched C_1-C_7 polyfluoroalkyl, straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7
 15 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein R_{18} is straight chained or branched C_1-C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

20 wherein each R_{19} is independently H, or straight chained or branched C_1-C_6 alkyl;

wherein each R_{20} is independently -H; straight chained or branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl;
 25 straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7 cycloalkyl or C_5-C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to
 30 form a methylenedioxy group;

wherein each R_{21} is independently -H; straight chained or

branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl;
 straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-
 C₇ cycloalkyl, C₅-C₇ cycloalkenyl, aryl or aryl(C₁-
 C₆)alkyl;

5

wherein each R₂₂ is independently H, F, Cl or C₁-C₄
 straight chained or branched alkyl;

wherein each m is an integer from 0 to 4 inclusive;

10

wherein each n is an integer from 1 to 4 inclusive;

wherein p is an integer from 0 to 2 inclusive;

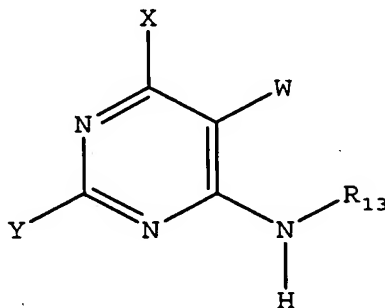
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wherein t is 1 or 2; or

a pharmaceutically acceptable salt thereof.

20

66. A pharmaceutical composition comprising a
 pharmaceutically acceptable carrier and a compound
 having the structure:



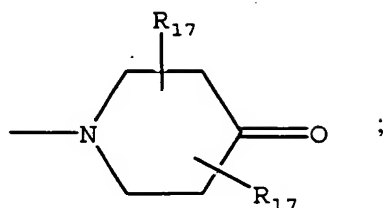
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5

wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

wherein X is $N(CH_3)_2$ or

10



wherein R₁₃ is a bicyclic alkyl ring system, aryl or aryl(C₁-C₆)alkyl;

15

wherein Y is $\text{NR}_{14}\text{R}_{15}$;

wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl, $(CH_2)_g-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

20

wherein R_{15} is $(C(R_{19})_2)_m - N(R_{16})_2$;

wherein Z is C₃-C₁₀ cycloalkyl, aryl, or heteroaryl;

25 wherein R₁₆ is straight chained or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl, straight chained or branched C₂-C₇ alkenyl, straight chained or branched C₂-C₇ alkynyl, C₅-C₇ cycloalkenyl, -

$(\text{CH}_2)_m\text{-Z}$, or $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$;

wherein each R_{17} is independently H; $-\text{OR}_{21}$, $-\text{OCOR}_{21}$, $-\text{COR}_{21}$,
 $-\text{NCOR}_{21}$, $-\text{N}(\text{R}_{21})_2$, $-\text{CON}(\text{R}_{21})_2$, $-\text{COOR}_{21}$, straight chained or
 5 branched $\text{C}_1\text{-C}_7$ alkyl, straight chained or branched $\text{C}_1\text{-C}_7$
 monofluoroalkyl, straight chained or branched $\text{C}_1\text{-C}_7$
 polyfluoroalkyl, straight chained or branched $\text{C}_2\text{-C}_7$
 alkenyl, straight chained or branched $\text{C}_2\text{-C}_7$ alkynyl, $\text{C}_5\text{-C}_7$
 cycloalkenyl, $-(\text{CH}_2)_m\text{-Z}$, or $(\text{CH}_2)_n\text{-O-}(\text{CH}_2)_m\text{-CH}_3$;

10

wherein each R_{19} is independently H, or straight chained
 or branched $\text{C}_1\text{-C}_6$ alkyl;

wherein each R_{21} is independently -H; straight chained or
 15 branched $\text{C}_1\text{-C}_7$ alkyl, monofluoroalkyl or polyfluoroalkyl;
 straight chained or branched $\text{C}_2\text{-C}_7$ alkenyl or alkynyl; $\text{C}_3\text{-C}_7$
 cycloalkyl, $\text{C}_5\text{-C}_7$ cycloalkenyl, aryl or aryl($\text{C}_1\text{-C}_6$)alkyl;

20 wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein q is an integer from 2 to 4 inclusive; or

25

a pharmaceutically acceptable salt thereof.

67. The pharmaceutical composition of claim 63, 64, 65
 or 66, wherein the compound is enantiomerically and
 30 diasteriomERICALLY pure.

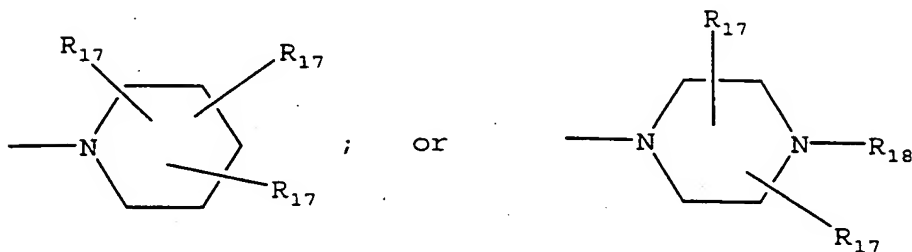
68. The pharmaceutical composition of claim 63, 64, 65

or 66, wherein the compound is enantiomerically or diastereomerically pure.

69. The pharmaceutical composition of claim 63, 64, 65
5 or 66,, wherein the compound can be administered orally.

70. The pharmaceutical composition of claim 63, wherein
X is:

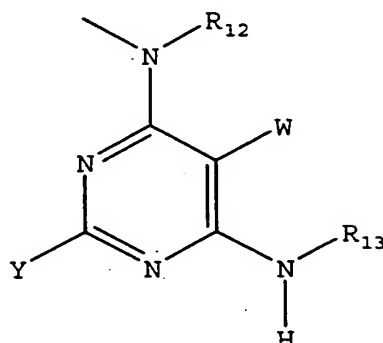
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20 71. The pharmaceutical composition of claim 63, wherein
X is $NR_{11}R_{12}$ and R_{11} is H or straight chained or
branched C_1 - C_7 alkyl.

72. The pharmaceutical composition of claim 71, wherein the compound has the structure:



- 5 73. The pharmaceutical composition of claim 70, wherein R_{13} is a bicyclic alkyl ring system, cyclohexyl or aryl.

- 10 74. The pharmaceutical composition of claim 72, wherein R_{13} is a bicyclic alkyl ring system, cyclohexyl or aryl.

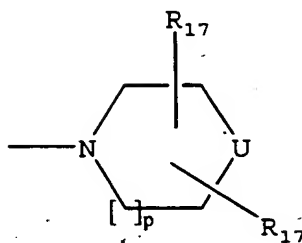
- 15 75. The pharmaceutical composition of claim 73, wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl or $(CH_2)_q-O-(CH_2)_m-CH_3$.

76. The pharmaceutical composition of claim 74, wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl or $(CH_2)_q-O-(CH_2)_m-CH_3$.

20

25

77. The pharmaceutical composition of claim 73, wherein Y is



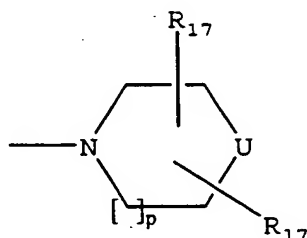
- 5 78. The pharmaceutical composition of claim 77, wherein U is NR_{16} .

79. The pharmaceutical composition of claim 78, wherein R_{16} is $(\text{CH}_2)_m\text{-Z}$.

10

80. The pharmaceutical composition of claim 79, wherein Z is aryl or heteroaryl.

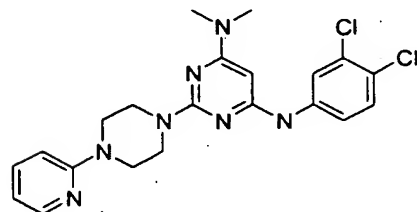
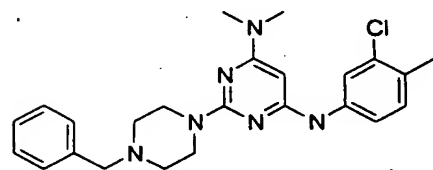
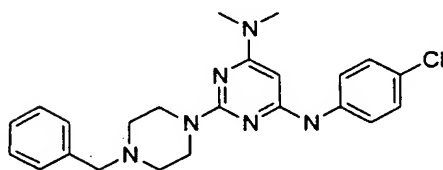
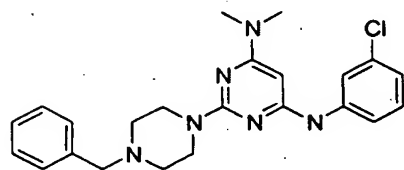
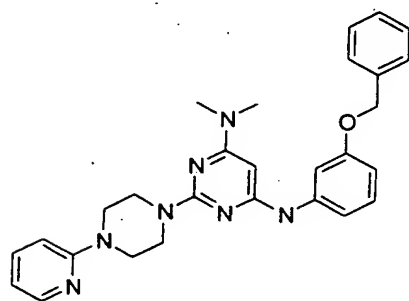
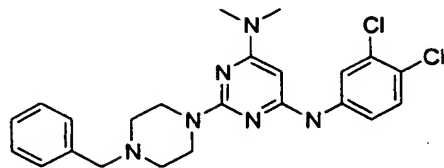
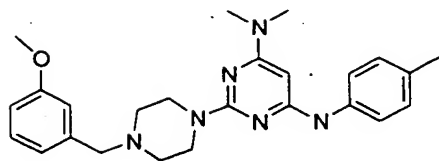
- 15 81. The pharmaceutical composition of claim 74, wherein Y is



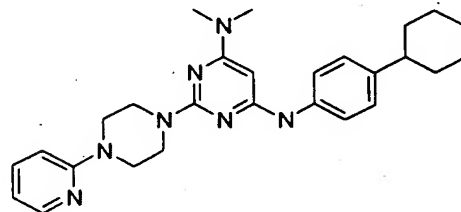
- 20 82. The pharmaceutical composition of claim 81, wherein U is NR_{16} .

83. The pharmaceutical composition of claim 82, wherein the compound is selected from the group consisting of:

5

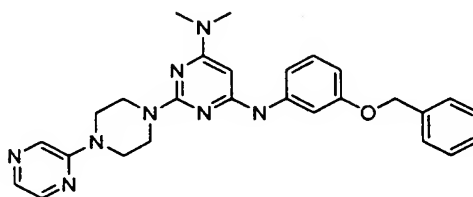
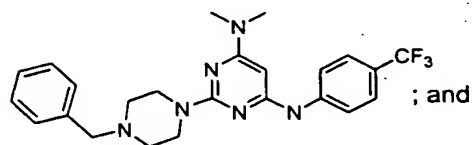
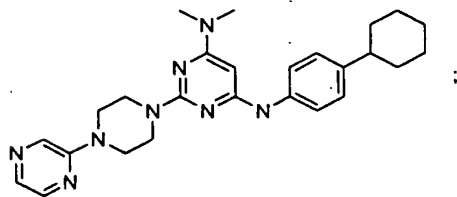
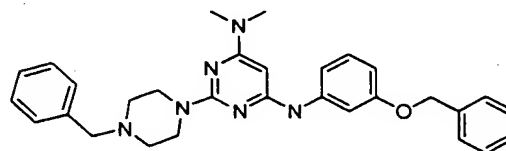
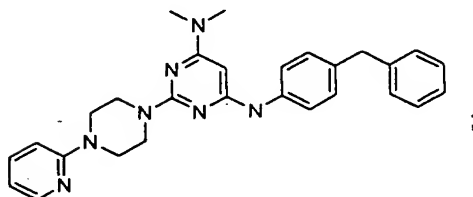
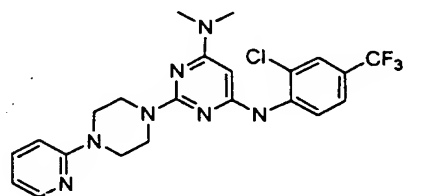
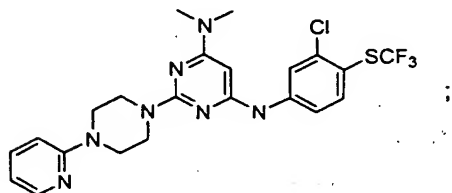
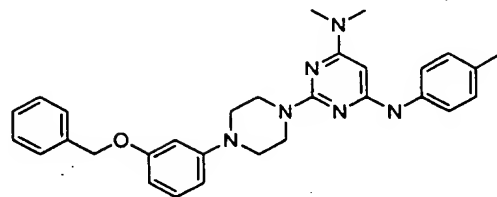
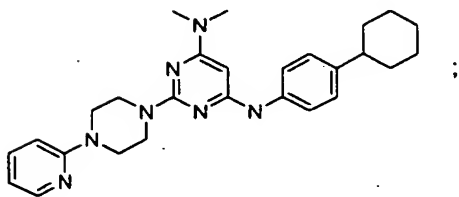


; and



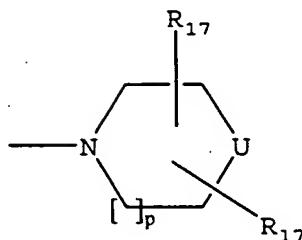
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84. The pharmaceutical composition of claim 82, wherein the compound is selected from the group consisting of:



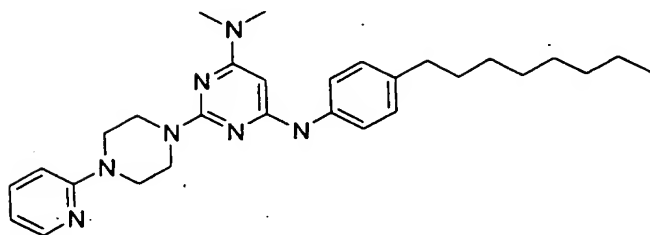
85. The pharmaceutical composition of claim 65, wherein
X is $N(CH_3)_2$.

86. The pharmaceutical composition of claim 85, wherein
Y is

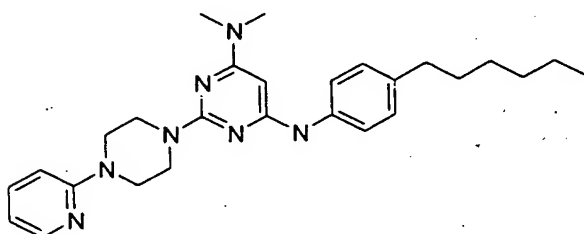


87. The pharmaceutical composition of claim 86, wherein R_{17}
is an aryl substituted with a C_1 - C_{10} straight chained
alkyl.

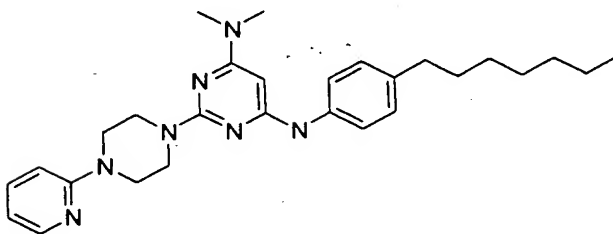
88. The pharmaceutical composition of claim 87, wherein the compound is selected from a group consisting of:



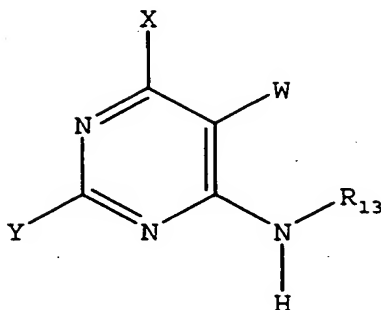
;



; and



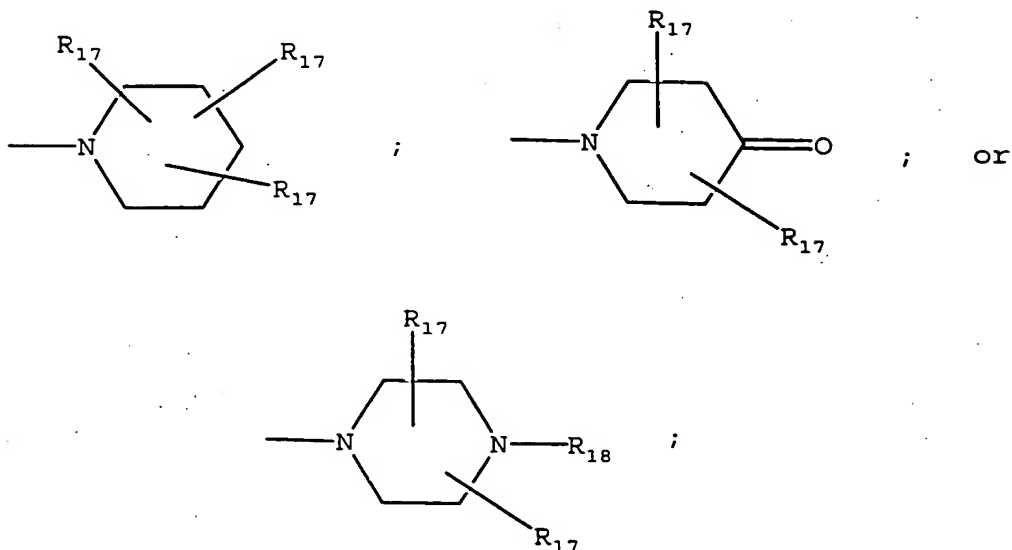
89. A compound having the structure:



wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

5

wherein X is; $\text{NR}_{11}\text{R}_{12}$;



wherein R_{11} is H, straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, aryl, or aryl $(\text{C}_1\text{-C}_6)$ alkyl;

10

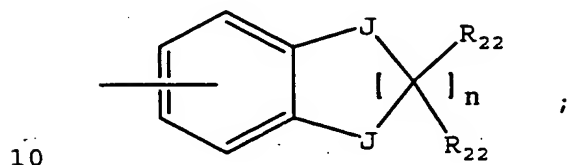
wherein R_{12} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, or $-(\text{CH}_2)_m\text{-Z}$;

wherein R_{13} is a bicyclic alkyl ring system, adamantyl,

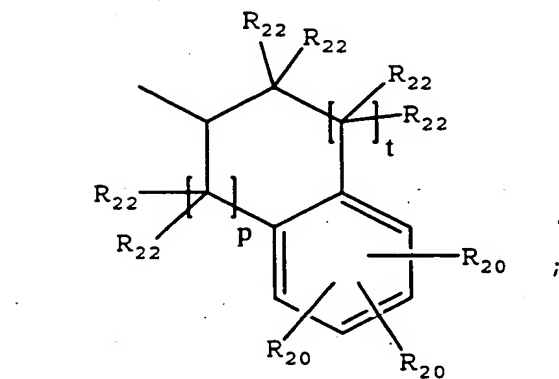
noradamantyl, C₃-C₁₀ cycloalkyl, heteroaryl, aryl, aryl(C₁-C₆)alkyl, Q₁ or Q₂;

wherein aryl may be substituted with one or more C₁-C₁₀
 5 straight chained or branched alkyl, aryl, heteroaryl, or
 N(R₁₉)-Z;

wherein Q₁ is



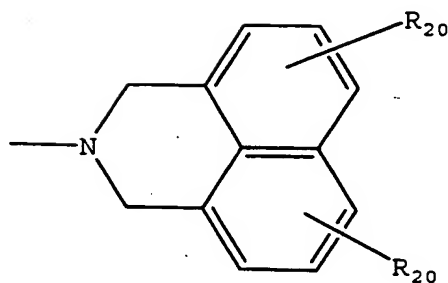
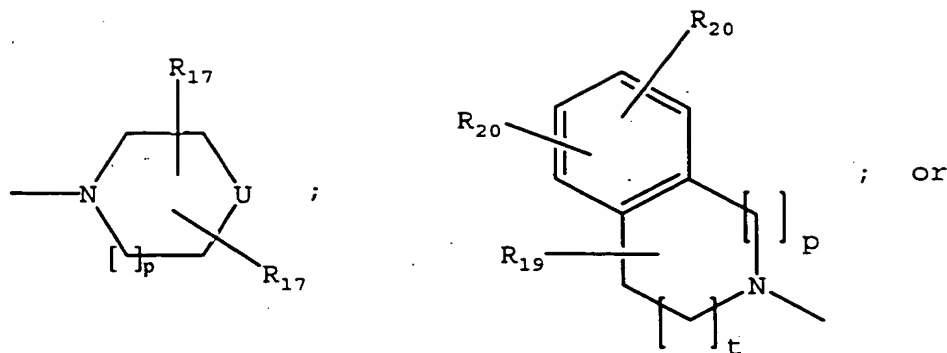
wherein Q₂ is



wherein each J is independently O, S, C(R₂₂)₂ or NR₄;

wherein R₄ is H; straight chained or branched C₁-C₇ alkyl,
 monofluoroalkyl or polyfluoroalkyl; straight chained or
 20 branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl, C₅-C₇
 cycloalkenyl or aryl;

wherein Y is $\text{NR}_{14}\text{R}_{15}$;



5

wherein R_{14} is H, straight chained or branched $\text{C}_1\text{-C}_6$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, $\text{C}_3\text{-C}_6$ cycloalkyl, or $(\text{C}(\text{R}_{19})_2)_m\text{-Z}$;

10 wherein R_{15} is straight chained or branched $\text{C}_3\text{-C}_6$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, $\text{C}_3\text{-C}_6$ cycloalkyl, $(\text{C}(\text{R}_{19})_2)_m\text{N}(\text{R}_{16})_2$ or $(\text{C}(\text{R}_{19})_2)_m\text{-Z}$;

15 wherein R_{16} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, straight chained or branched $\text{C}_1\text{-C}_7$ monofluoroalkyl, straight chained or branched $\text{C}_1\text{-C}_7$ polyfluoroalkyl, straight chained or branched $\text{C}_2\text{-C}_7$ alkenyl, straight chained or branched $\text{C}_2\text{-C}_7$ alkynyl, $\text{C}_5\text{-C}_7$ cycloalkenyl, $(\text{CH}_2)_m\text{-Z}$, or $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$;

20

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein R_{18} is straight chained or branched C_1 - C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{19} is independently H, or straight chained or branched C_1 - C_6 alkyl;

wherein each R_{20} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; $-CN$; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

wherein each R_{21} is independently -H; straight chained or branched C_1 - C_7 alkyl; monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl, or aryl(C_1 - C_6)alkyl;

wherein each R_{22} is independently H, F, Cl or C_1 - C_4 straight chained or branched alkyl;

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

5 wherein p is an integer from 0 to 2 inclusive;

wherein q is an integer from 2 to 4 inclusive;

wherein t is 1 or 2;

10

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

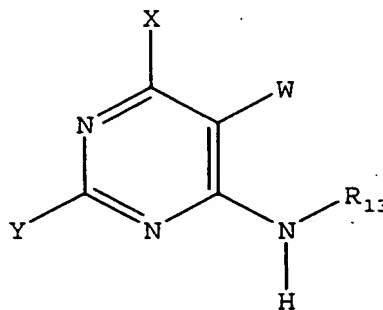
wherein Z is C_3-C_{10} cycloalkyl, C_4-C_7 cyclic ether, C_4-C_7 cyclic thioether, aryl, or heteroaryl; or

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a pharmaceutically acceptable salt thereof.

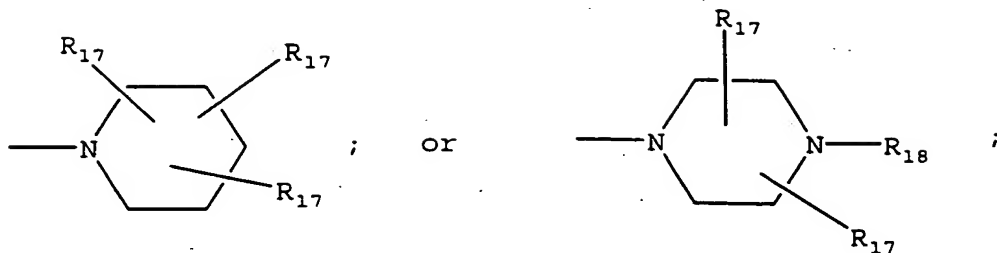
90. A compound having the structure:

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wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

wherein X is $\text{NR}_{11}\text{R}_{12}$;



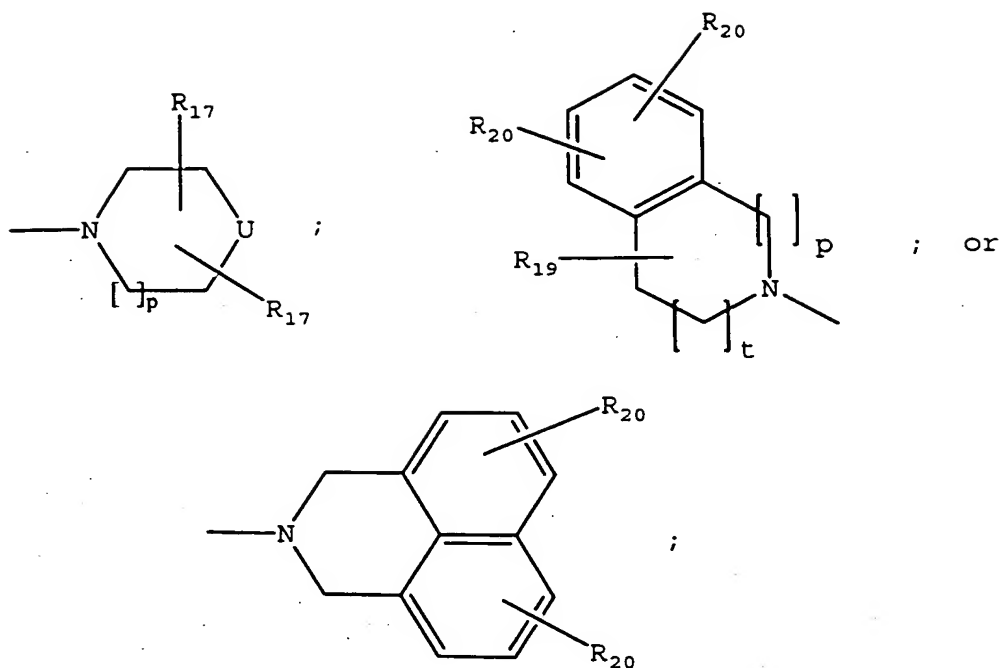
wherein R_{11} is H, straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, aryl or aryl($\text{C}_1\text{-C}_6$)alkyl;

5

wherein R_{12} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl, $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$, or $-(\text{CH}_2)_m\text{-Z}$;

wherein R_{13} is a bicyclic alkyl ring system, aryl or
10 aryl($\text{C}_1\text{-C}_6$)alkyl;

wherein Y is $\text{NR}_{14}\text{R}_{15}$;



wherein R_{14} is H, straight chained or branched C_1 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

5

wherein R_{15} is straight chained or branched C_3 - C_6 alkyl, $(CH_2)_q-O-(CH_2)_m-CH_3$, C_3 - C_6 cycloalkyl, or $(C(R_{19})_2)_m-Z$;

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

10

wherein Z is C_3 - C_{10} cycloalkyl, aryl, or heteroaryl;

wherein R_{16} is straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

15

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein R_{18} is straight chained or branched C_1 - C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{19} is independently H, or straight chained or branched C_1 - C_6 alkyl;

wherein each R_{20} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

wherein each R_{21} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein p is an integer from 0 to 2 inclusive;

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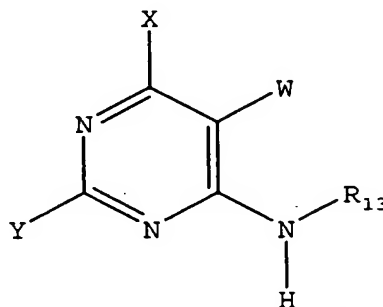
wherein q is an integer from 2 to 4 inclusive;

wherein t is 1 or 2; or

10 a pharmaceutically acceptable salt thereof.

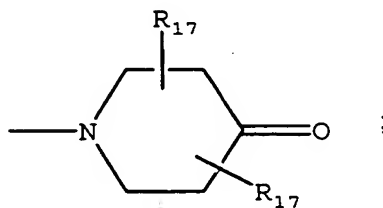
91. A compound having the structure:

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wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;

20 wherein X is $\text{N}(\text{CH}_3)_2$ or

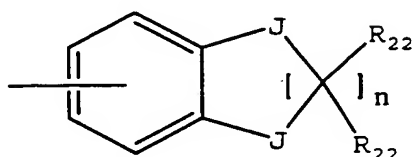


wherein R_{13} is an aryl, adamantyl, noradamantyl, C_3 - C_{10} cycloalkyl, heteroaryl, Q_1 or Q_2 ;

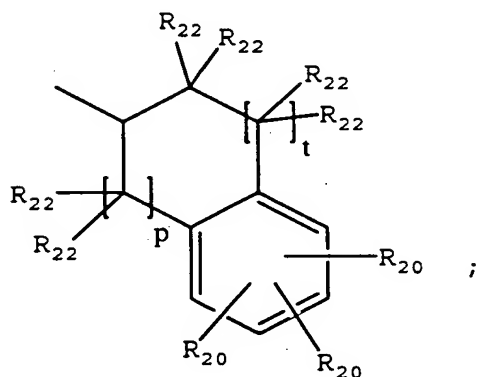
- 5 wherein aryl may be substituted with one or more C_1 - C_{10} straight chained or branched alkyl, aryl, heteroaryl, or $N(R_{19})-Z$;

wherein Q_1 is

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wherein Q_2 is

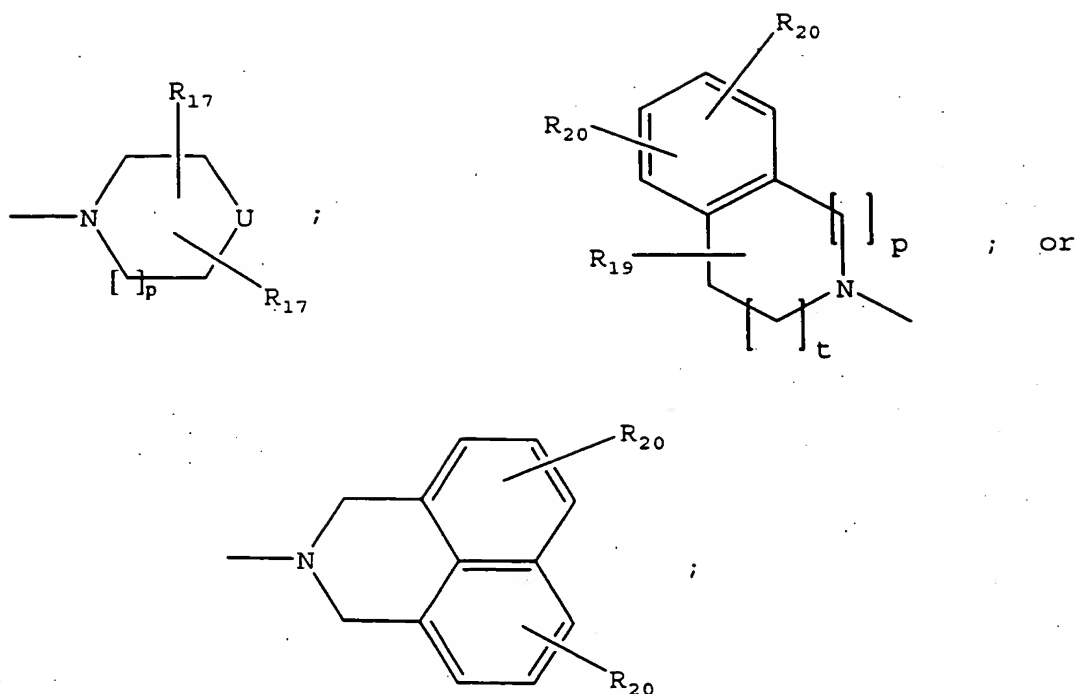


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wherein each J is independently O, S, $C(R_{22})_2$ or NR_4 ;

- wherein R_4 is -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight
 20 chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl or aryl;

wherein Y is $\text{NR}_{14}\text{R}_{15}$;



5

wherein R_{14} is H, straight chained or branched $\text{C}_1\text{-C}_6$ alkyl, $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, $\text{C}_3\text{-C}_6$ cycloalkyl, or $(\text{C}(\text{R}_{19})_2)_m\text{-Z}$;

wherein R_{15} is straight chained or branched $\text{C}_3\text{-C}_6$ alkyl,
 10 $(\text{CH}_2)_q\text{-O-(CH}_2)_m\text{-CH}_3$, $\text{C}_3\text{-C}_6$ cycloalkyl, or $(\text{C}(\text{R}_{19})_2)_m\text{-Z}$;

wherein U is O, -NR_{16} , S, $\text{C}(\text{R}_{17})_2$, or $\text{-NSO}_2\text{R}_{16}$;

wherein Z is $\text{C}_3\text{-C}_{10}$ cycloalkyl, aryl, or heteroaryl;

15

wherein R_{16} is straight chained or branched $\text{C}_1\text{-C}_7$ alkyl,
 straight chained or branched $\text{C}_1\text{-C}_7$ monofluoroalkyl,
 straight chained or branched $\text{C}_1\text{-C}_7$ polyfluoroalkyl,

straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

- 5 wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1-C_7 alkyl, straight chained or branched C_1-C_7 monofluoroalkyl, straight chained or branched C_1-C_7 polyfluoroalkyl, straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;
- 10

wherein R_{18} is straight chained or branched C_1-C_6 alkyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

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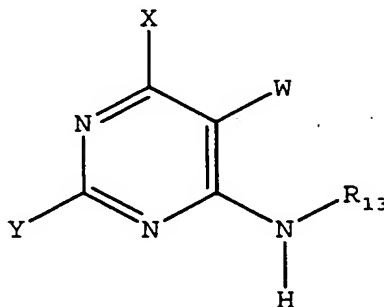
wherein each R_{19} is independently H, or straight chained or branched C_1-C_6 alkyl;

- wherein each R_{20} is independently -H; straight chained or branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7 cycloalkyl or C_5-C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;
- 20
- 25

- wherein each R_{21} is independently -H; straight chained or branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7 cycloalkyl, C_5-C_7 cycloalkenyl, aryl or aryl(C_1-C_6)alkyl;
- 30

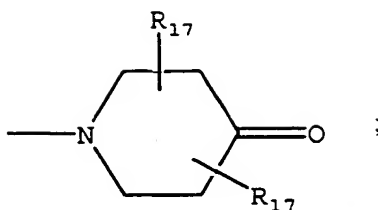
- wherein each R_{22} is independently H, F, Cl or C_1-C_4 straight chained or branched alkyl;
- 5 wherein each m is an integer from 0 to 4 inclusive;
- wherein each n is an integer from 1 to 4 inclusive;
- wherein p is an integer from 0 to 2 inclusive;
- 10 wherein q is an integer from 2 to 4 inclusive;
- wherein t is 1 or 2; or
- 15 a pharmaceutically acceptable salt thereof.

92. A compound having the structure:



- 20 wherein W is H, -F, -Cl, -Br, -I, CN, methyl, ethyl, propyl, methoxy or ethoxy;
- wherein X is $N(CH_3)_2$ or

25



wherein R_{13} is a bicyclic alkyl ring system, aryl or aryl(C_1 - C_6)alkyl;

5

wherein Y is $\text{NR}_{14}\text{R}_{15}$;

wherein R₁₄ is H, straight chained or branched C₁-C₆ alkyl, (CH₂)_q-O-(CH₂)_m-CH₃, C₃-C₆ cycloalkyl, or (C(R₁₉)₂)_m-Z;

10

wherein R_{15} is $(C(R_{19})_2)_m-N(R_{16})_2$;

wherein Z is C₃-C₁₀ cycloalkyl, aryl, or heteroaryl;

15 wherein R_{16} is straight chained or branched C_1 - C_7 alkyl,
straight chained or branched C_1 - C_7 monofluoroalkyl,
straight chained or branched C_1 - C_7 polyfluoroalkyl,
straight chained or branched C_2 - C_7 alkenyl, straight
chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, -
20 $(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein each R_{17} is independently H; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, $-COOR_{21}$, straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein each R_{19} is independently H, or straight chained or branched C_1-C_6 alkyl;

wherein each R_{21} is independently -H; straight chained or
 5 branched C_1-C_7 alkyl, monofluoroalkyl or polyfluoroalkyl;
 straight chained or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7 cycloalkyl, C_5-C_7 cycloalkenyl, aryl or aryl(C_1-C_6)alkyl;

10 wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein q is an integer from 2 to 4 inclusive; or

15

a pharmaceutically acceptable salt thereof.

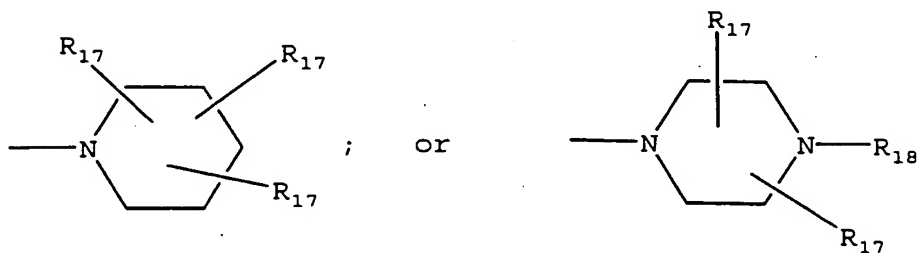
93. An enantiomerically and diasteriomERICALLY pure compound of claim 89, 90, 91, or 92.

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94. An enantiomerically or diasteriomERICALLY pure compound of claim 89, 90, 91, or 92.

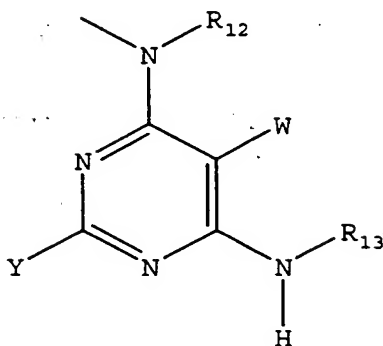
95. The compound of claim 89, wherein X is:

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96. The compound of claim 88, wherein X is $\text{NR}_{11}\text{R}_{12}$ and R_{11} is H or straight chained or branched $\text{C}_1\text{-C}_7$ alkyl.

5 97. The compound of claim 96, wherein the compound has the structure:



10 98. The compound of claim 95, wherein R_{13} is a bicyclic alkyl ring system, cyclohexyl or aryl.

99. The compound of claim 97, wherein R_{13} is a bicyclic alkyl ring system, cyclohexyl or aryl.

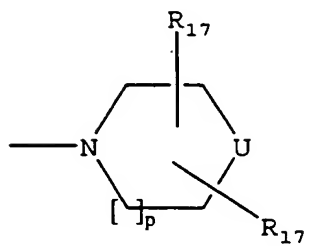
15 100. The compound of claim 98, wherein R_{14} is H, straight chained or branched $\text{C}_1\text{-C}_6$ alkyl or $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$.

101. The compound of claim 99, wherein R_{14} is H, straight chained or branched $\text{C}_1\text{-C}_6$ alkyl or $(\text{CH}_2)_q\text{-O-}(\text{CH}_2)_m\text{-CH}_3$.

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102. The compound of claim 98, wherein Y is



103. The compound of claim 102, wherein U is NR_{16} .

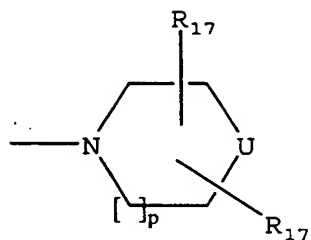
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104. The compound of claim 103, wherein R_{16} is $(\text{CH}_2)_m\text{-Z}$.

105. The compound of claim 104, wherein Z is aryl or heteroaryl.

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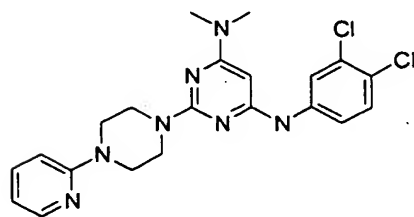
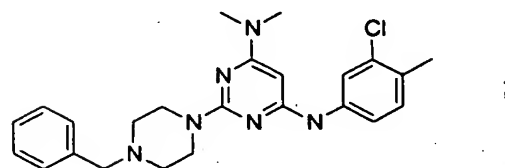
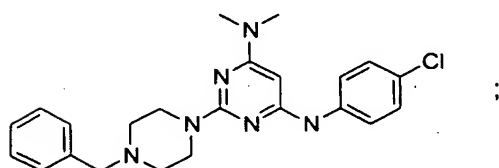
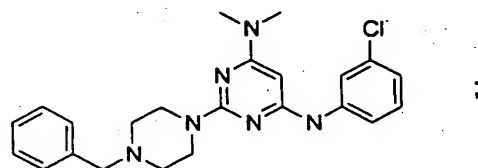
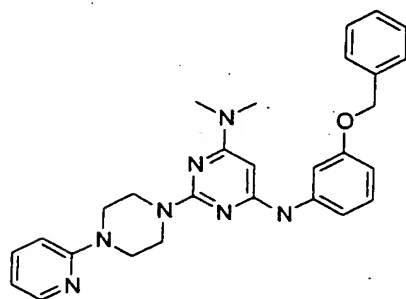
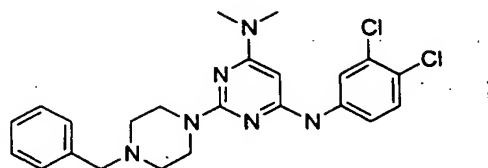
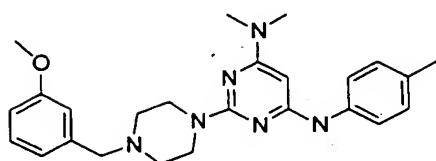
106. The compound of claim 99, wherein Y is



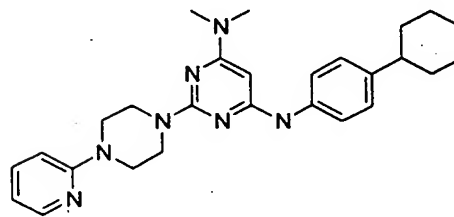
15 107. The compound of claim 106, wherein U is NR_{16} .

108. The compound of claim 107, wherein the compound is selected from the group consisting of:

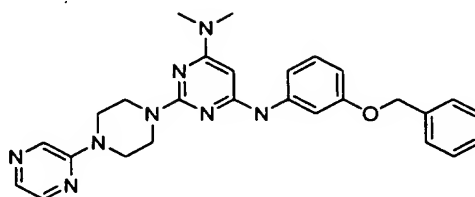
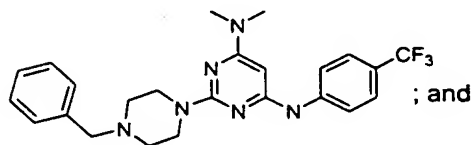
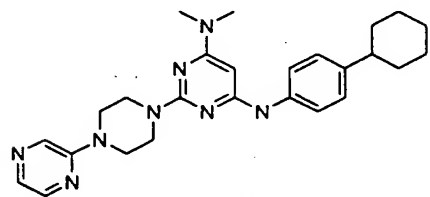
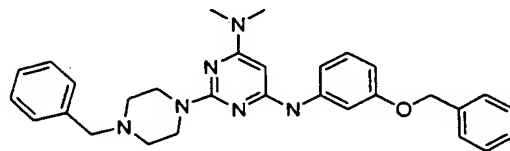
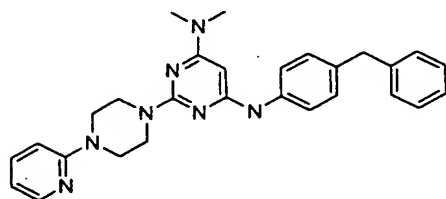
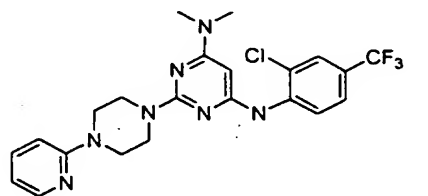
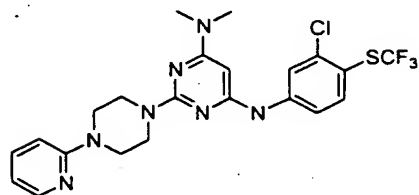
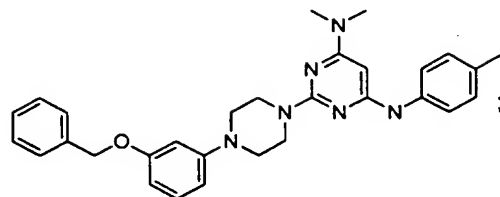
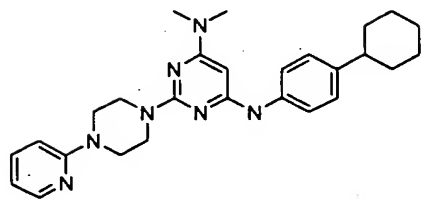
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; and

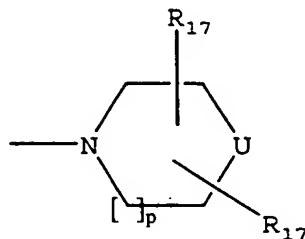


109. The compound of claim 107, wherein the compound is selected from the group consisting of:



110. The compound of claim 89, wherein X is $N(CH_3)_2$.

111. The compound of claim 110, wherein Y is



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111. The compound of claim 110, wherein R_{13} is an aryl substituted with a C_1 - C_{10} straight chained alkyl.

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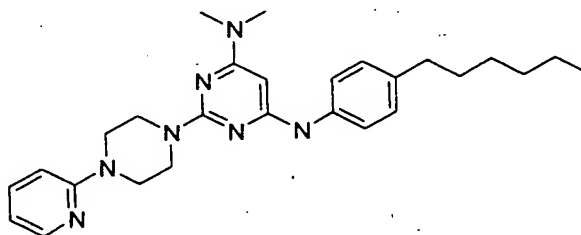
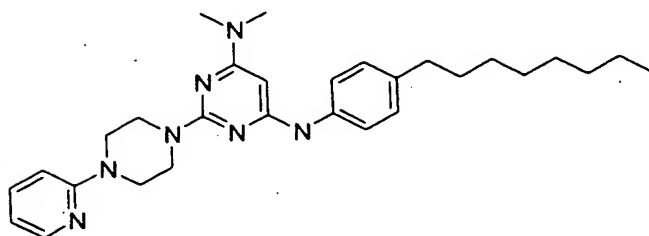
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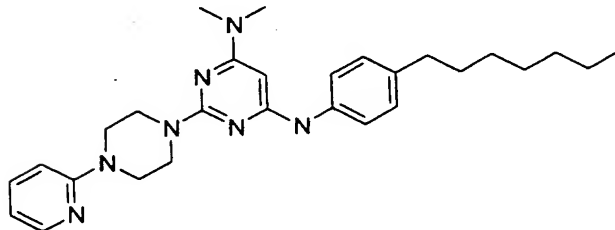
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112. The compound of claim 111, wherein the compound is selected from a group consisting of:

5



; and



113. A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 89, 90, 91, or 92 and a pharmaceutically acceptable carrier.

114. A pharmaceutical composition made by combining a therapeutically effective amount of the compound of claim 89, 90, 91, or 92 and a pharmaceutically acceptable carrier.

115. A process for making a pharmaceutical composition comprising combining a therapeutically effective amount of the compound of claim 89, 90, 91, or 92
5 and a pharmaceutically acceptable carrier.

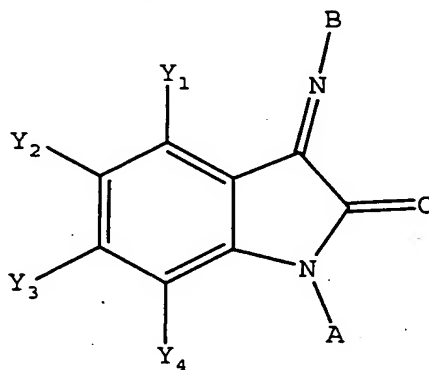
116. A method of treating a subject suffering from depression which comprises administering to the subject an amount of the compound of claim 89, 90,
10 91, or 92 effective to treat the subject's depression.

117. A method of treating a subject suffering from anxiety which comprises administering to the subject
15 an amount of the compound of claim 89, 90, 91, or 92 effective to treat the subject's anxiety.

118. A method of treating a subject suffering from depression and anxiety which comprises administering
20 to the subject an amount of the compound of claim 89, 90, 91, or 92 effective to treat the subject's depression and anxiety.

25

119. A method of treating a subject suffering from depression which comprises administering to the subject an amount of compound effective to treat the subject's depression wherein the compound has the structure:



wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
 10 H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, -
 15 $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent carbon atoms can constitute a methylenedioxy group;

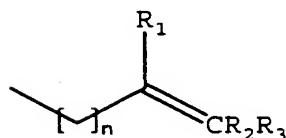
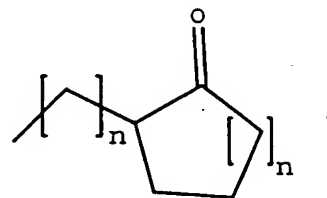
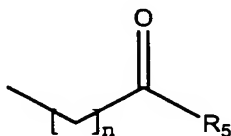
wherein each R_4 is independently -H; straight chained
 20 or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

25 wherein A is A' , Q_3 , Q_4 , Q_5 , straight chained or

branched C₁-C₇ alkyl, aryl, heteroaryl, aryl(C₁-C₆)alkyl, heteroaryl(C₁-C₆)alkyl, aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl; or (CHR₁₇)-(CHR₁₇)_n-Z;

5

wherein A' is

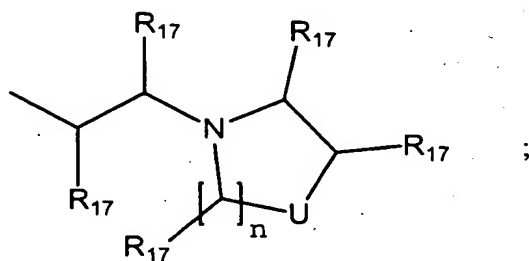


; or



10

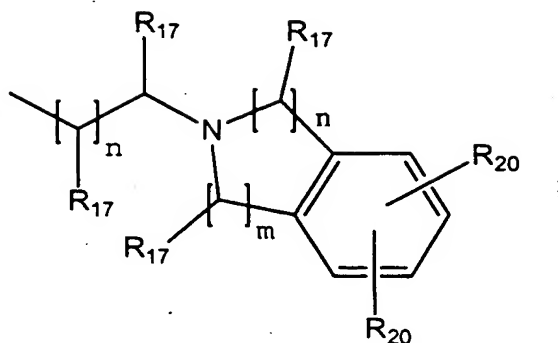
wherein Q₃ is



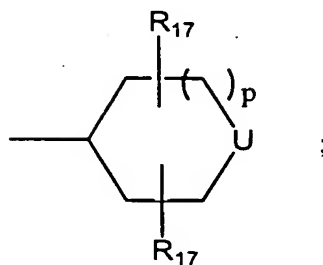
15

20

wherein Q_4 is



wherein Q_5 is



5

wherein R_1 and R_2 are each independently H, straight chained or branched C_1 - C_7 alkyl, -F, -Cl, -Br, -I, - NO_2 , or -CN;

10

wherein R_3 is H, straight chained or branched C_1 - C_7 alkyl, -F, -Cl, -Br, -I, - NO_2 , -CN, - OR_6 , aryl or heteroaryl;

15

wherein R_5 is straight chained or branched C_1 - C_7 alkyl, - $N(R_4)_2$, - OR_6 or aryl;

wherein R_6 is straight chained or branched C_1 - C_7 alkyl or aryl;

20

wherein each R_{17} is independently H; straight chained

or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl, straight chained or branched C₂-C₇ alkenyl, straight chained or branched C₂-C₇ alkynyl, C₅-C₇ cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein each R₂₀ is independently -H; straight chained or branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl or C₅-C₇ cycloalkenyl; -F, -Cl, -Br, or -I; -NO₂; -N₃; -CN; -OR₂₁, -OCOR₂₁, -COR₂₁, -NCOR₂₁, -N(R₂₁)₂, -CON(R₂₁)₂, or -COOR₂₁; aryl or heteroaryl; or two R₂₀ groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

wherein each R₂₁ is independently -H; straight chained or branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl, C₅-C₇ cycloalkenyl, aryl or aryl(C₁-C₆)alkyl;

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein each p is an integer from 0 to 2 inclusive;

wherein U is O, -NR₁₆, S, C(R₁₇)₂, or -NSO₂R₁₆;

wherein Z is C₃-C₁₀ cycloalkyl, C₄-C₇ cyclic ether,

C₄-C₇ cyclic thioether, aryl, or heteroaryl;

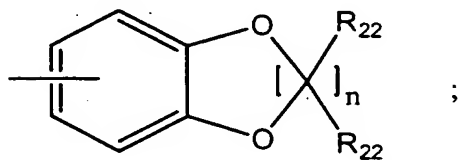
wherein R₁₆ is straight chained or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl, straight chained or branched C₂-C₇ alkenyl, straight chained or branched C₂-C₇ alkynyl, C₅-C₇ cycloalkenyl, -(CH₂)_m-Z, or (CH₂)_q-O-(CH₂)_m-CH₃;

wherein q is an integer from 2 to 4 inclusive;

wherein B is aryl, heteroaryl, aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl, tricyclic heteroaryl or Q₆; provided however, if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond may only be substituted with one or more of the following -F, -Cl, -Br, -I, -CN, methyl, ethyl or methoxy;

wherein a tricyclic heteroaryl is a fused three member aromatic system in which one or more of the rings is heteroaryl; carbazole; or acridine;

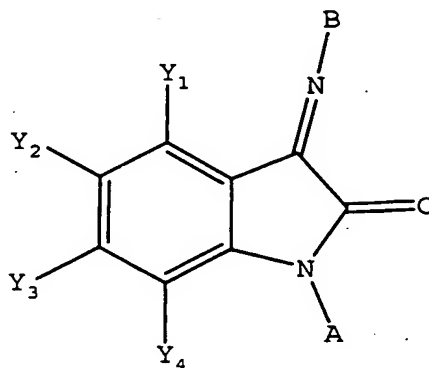
wherein Q₆ is



wherein each R₂₂ is independently H, F, Cl, or straight chained or branched C₁-C₄ alkyl;

or a pharmaceutically acceptable salt thereof.

120. A method of treating a subject suffering from depression which comprises administering to the subject an amount of compound effective to treat the subject's depression wherein the compound has the structure:

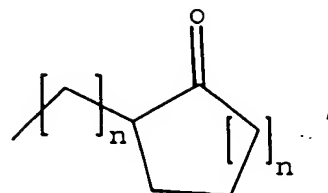
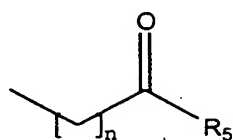


wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, - $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent carbon atoms can constitute a methylenedioxy group;

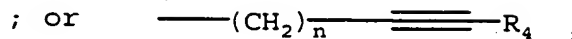
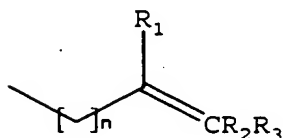
wherein each R_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein A is A', straight chained or branched C₁-C₇ alkyl, aryl, heteroaryl, aryl(C₁-C₆)alkyl or heteroaryl(C₁-C₆)alkyl;

5



wherein A' is



10

wherein R₁ and R₂ are each independently H, straight chained or branched C₁-C₇ alkyl, -F, -Cl, -Br, -I, -NO₂, or -CN;

15

wherein R₃ is H, straight chained or branched C₁-C₇ alkyl, -F, -Cl, -Br, -I, -NO₂, -CN, -OR₆ aryl or heteroaryl;

20

wherein R₅ is straight chained or branched C₁-C₇ alkyl, -N(R₄)₂, -OR₆ or aryl;

wherein R₆ is straight chained or branched C₁-C₇

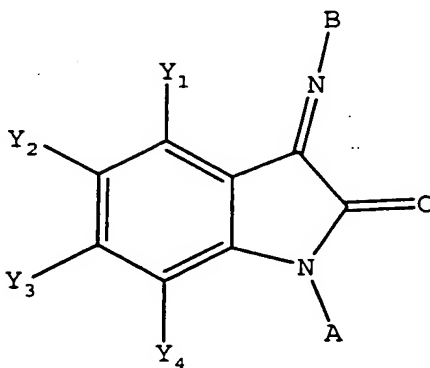
alkyl or aryl;

wherein B is aryl, or heteroaryl; provided however,
if B is aryl or heteroaryl the carbon atom or carbon
atoms ortho to the nitrogen atom of the imine bond
may only be substituted with one or more of the
following -F, -Cl, -Br, -I, -CN, methyl, ethyl or
methoxy;

wherein n is an integer from 1 to 4 inclusive;

or a pharmaceutically acceptable salt thereof.

121. A method of treating a subject suffering from
depression which comprises administering to the
subject an amount of compound effective to treat the
subject's depression wherein the compound has the
structure:



wherein each of Y₁, Y₂, Y₃, and Y₄ is independently -
H; straight chained or branched C₁-C₇ alkyl,
monofluoroalkyl or polyfluoroalkyl; straight chained
or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇
cycloalkyl, or C₅-C₇ cycloalkenyl; -F, -Cl, -Br, or -

I; $-\text{NO}_2$; $-\text{N}_3$; $-\text{CN}$; $-\text{OR}_4$, $-\text{SR}_4$, $-\text{OCOR}_4$, $-\text{COR}_4$, $-\text{NCOR}_4$, $-\text{N}(\text{R}_4)_2$, $-\text{CON}(\text{R}_4)_2$, or $-\text{COOR}_4$; aryl or heteroaryl; or any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent carbon atoms can constitute a methylenedioxy group;

5

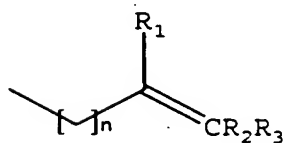
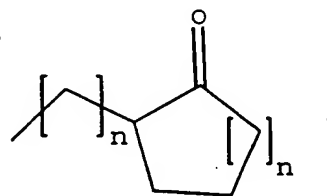
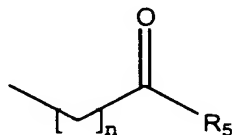
wherein each R_4 is independently $-\text{H}$; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

10

wherein A is A', straight chained or branched C_1 - C_7 alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl or heteroaryl(C_1 - C_6)alkyl;

15

wherein A' is



; or



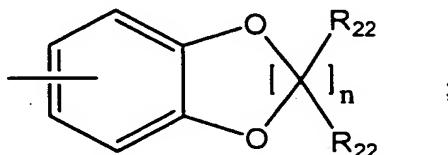
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wherein B is aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or

heteroaryl, tricyclic heteroaryl or Q_6 ;

wherein a tricyclic heteroaryl is a fused three ring aromatic system in which one or more of the rings is heteroaryl; carbazole; or acridine;

wherein Q_6 is

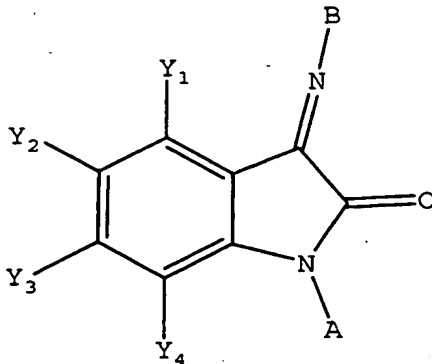


wherein n is an integer from 1 to 4 inclusive;

wherein each R_{22} is independently H, F, Cl, or straight chained or branched C_1 - C_4 alkyl;

or a pharmaceutically acceptable salt thereof.

122. A method of treating a subject suffering from depression which comprises administering to the subject an amount of compound effective to treat the subject's depression wherein the compound has the structure:

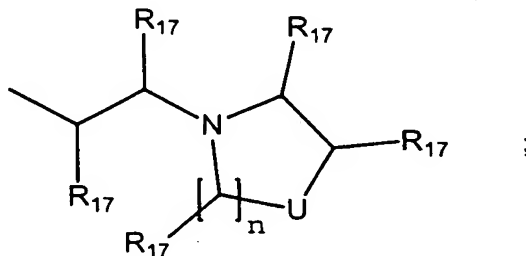


wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
 H; straight chained or branched C_1 - C_7 alkyl,
 monofluoroalkyl or polyfluoroalkyl; straight chained
 5 or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7
 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -
 I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, -
 $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or
 10 any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent
 carbon atoms can constitute a methylenedioxy group;

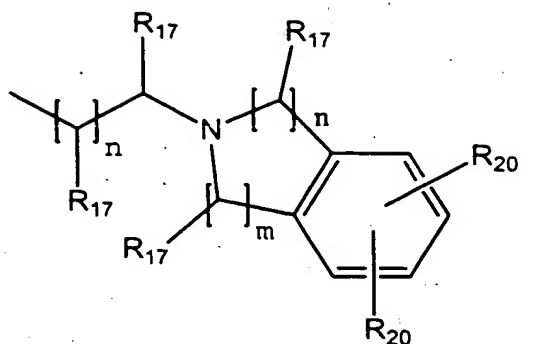
wherein each R_4 is independently -H; straight chained
 or branched C_1 - C_7 alkyl, monofluoroalkyl or
 polyfluoroalkyl; straight chained or branched C_2 - C_7
 15 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7
 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein A is Q_3 , Q_4 , Q_5 , aryl substituted with an
 aryl or heteroaryl, heteroaryl substituted with an
 20 aryl or heteroaryl, or $(CHR_{17})-(CHR_{17})_n-Z$;

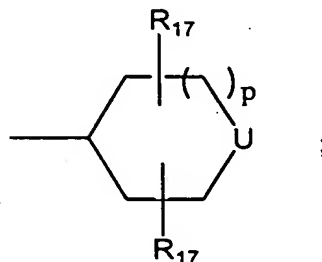
wherein Q_3 is



25 wherein Q_4 is



wherein Q₅ is



5

wherein each R₁₇ is independently H; straight chained or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl, straight chained or branched C₂-C₇ alkenyl, straight chained or branched C₂-C₇ alkynyl, C₅-C₇ cycloalkenyl, -(CH₂)_m-Z, or (CH₂)_n-O-(CH₂)_m-CH₃;

15

wherein each R₂₀ is independently -H; straight chained or branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl or C₅-C₇ cycloalkenyl; -F, -Cl, -Br, or -I; -NO₂; -N₃; -CN; -OR₂₁, -OCOR₂₁, -COR₂₁, -NCOR₂₁, -N(R₂₁)₂, -CON(R₂₁)₂, or -COOR₂₁; aryl or heteroaryl; or two R₂₀ groups present on adjacent carbon atoms can join together to form a

20

methylenedioxy group;

wherein each R_{21} is independently -H; straight
 chained or branched C_1-C_7 alkyl, monofluoroalkyl or
 5 polyfluoroalkyl; straight chained or branched C_2-C_7
 alkenyl or alkynyl; C_3-C_7 cycloalkyl, C_5-C_7
 cycloalkenyl or aryl;

wherein each R_{22} is independently H, F,
 10 Cl, or straight chained or branched C_1-C_4 alkyl;

wherein q is an integer from 2 to 4 inclusive;

wherein each m is an integer from 0 to 4 inclusive;

15

wherein each n is an integer from 1 to 4 inclusive;

wherein each p is an integer from 0 to 2 inclusive;

20

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

wherein Z is C_3-C_{10} cycloalkyl, C_4-C_7 cyclic ether,
 C_4-C_7 cyclic thioether, aryl, or heteroaryl;

25

wherein R_{16} is straight chained or branched C_1-C_7
 alkyl, straight chained or branched C_1-C_7
 monofluoroalkyl, straight chained or branched C_1-C_7
 polyfluoroalkyl, straight chained or branched C_2-C_7
 alkenyl, straight chained or branched C_2-C_7 alkynyl,
 30 C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein B is aryl, or heteroaryl; provided however,

if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond may only be substituted with one or more of the following -F, -Cl, -Br, -I, -CN, methyl, ethyl or methoxy;

or a pharmaceutically acceptable salt thereof.

10 123. The method of claim 119, 120, 121, or 122, wherein the compound is enantiomerically and diastereomerically pure.

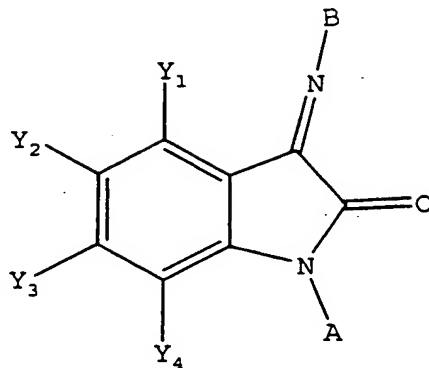
124. The method of claim 119, 120, 121, or 122, wherein the compound is enantiomerically or diastereomerically pure.

125. The method of claim 119, 120, 121, or 122, wherein the compound is a pure Z imine isomer or a pure Z alkene isomer.

126. The method of claim 119, 120, 121, or 122, wherein the compound is a pure E imine isomer or a pure E alkene isomer.

25 127. The method of claim 119, 120, 121, or 122, wherein the compound is administered orally.

128. The method of claim 119 or 120, wherein the compound has the structure:



5

wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, $-CF_3$, -F, -Cl, -Br, -I, $-OR_4$, $-N(R_4)_2$, or $-CON(R_4)_2$;

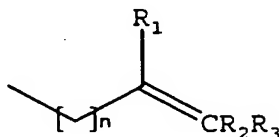
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wherein each R_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, $-CF_3$, or phenyl;

15

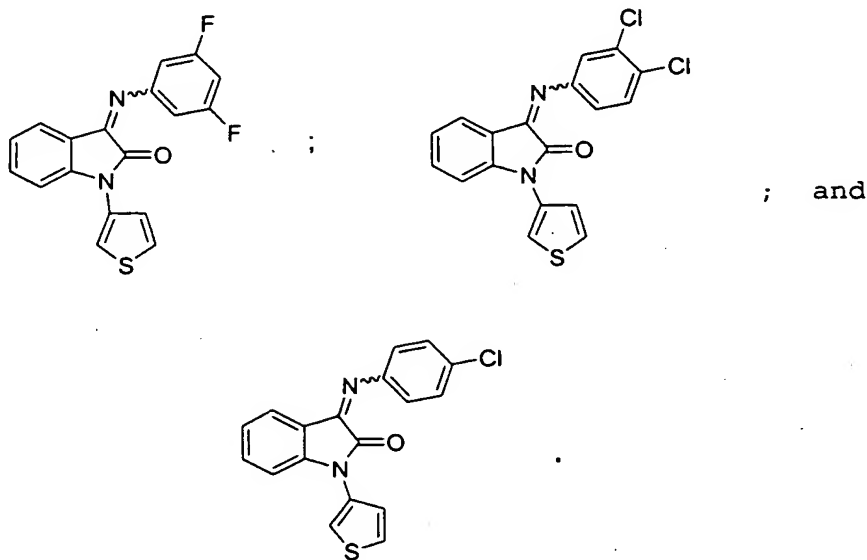
wherein A is A' , straight chained or branched C_1 - C_7 alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl or heteroaryl(C_1 - C_6)alkyl; and

wherein A' is



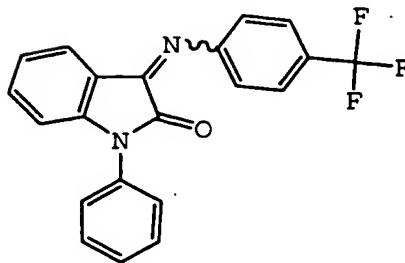
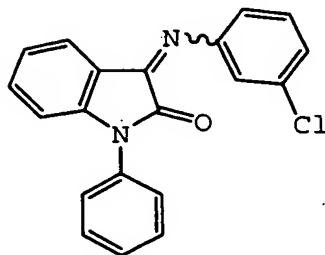
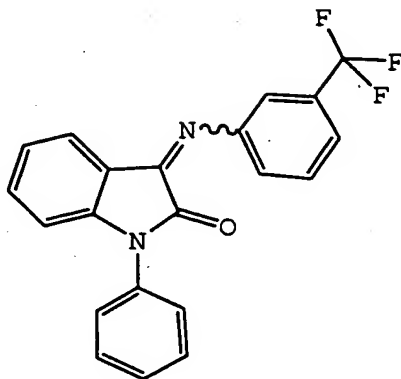
20 129. The method of claim 119, 120 or 122, wherein B is heteroaryl.

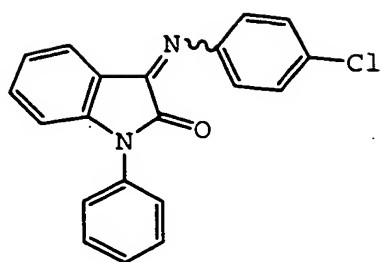
130. The method of claim 119 or 120, wherein B is aryl.
131. The method of claim 130, wherein B is phenyl and the
 5 phenyl is optionally substituted with one or more of
 the following: -F, -Cl, -Br, -CF₃, straight chained
 or branched C₁-C₇ alkyl, -N(R₄)₂, -OR₄, -COR₄, -NCOR₄,
 -CO₂R₄, or -CON(R₄)₂.
- 10 132. The method of claim 131, wherein A is aryl.
133. The method of claim 131, wherein A is heteroaryl.
134. The method of claim 133, wherein the compound is
 15 selected from the group consisting of:



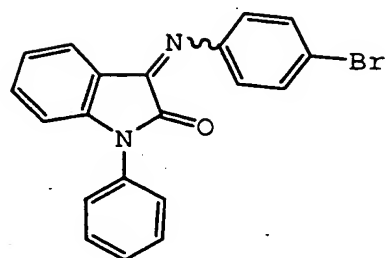
135. The method of claim 132, wherein the compound is selected from the group consisting of:

5

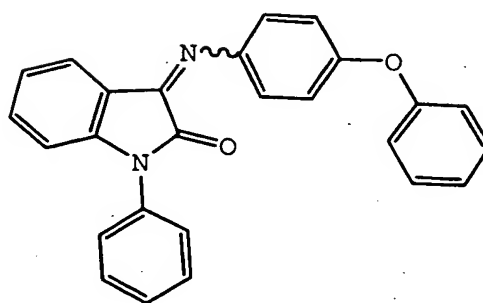




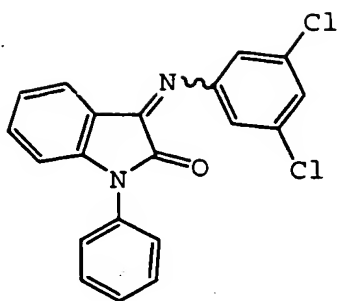
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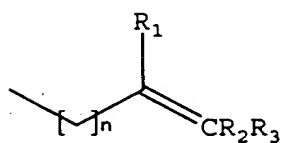
;



; and



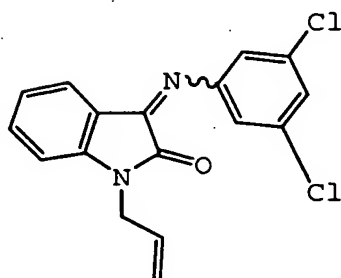
136. The method of claim 130, wherein A is A' and A' is



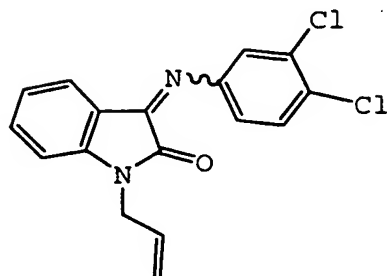
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137. The method of claim 136, wherein the compound is:

10



; or

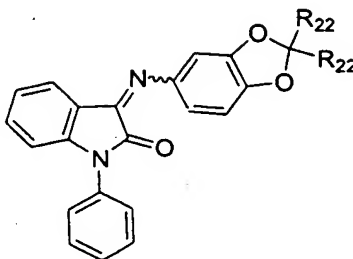


138. The method of claim 121, wherein B is Q₆.

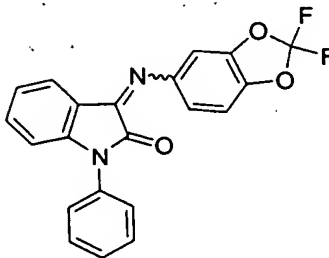
5 139. The method of claim 138, wherein A is aryl.

140. The method of claim 139, wherein the compound has the structure:

10



15 141. The method of claim 140, wherein the compound is:



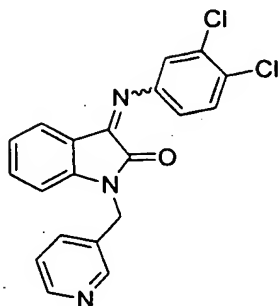
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142. The method of claim 122, wherein B is aryl.

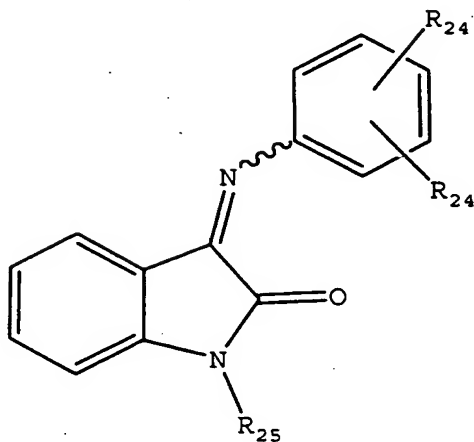
143. The method of claim 142, wherein A is $(\text{CHR}_{17})_n - (\text{CHR}_{17})_n - \text{Z}$.

144. The method of claim 143, wherein the compound is:

5



10 145. The method of claim 119, wherein the compound has the structure:



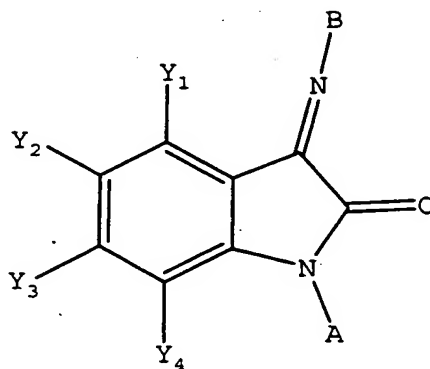
15 wherein each R_{24} is independently one or more of the following: H, F, Cl, Br, I, CF_3 , OCH_3 or NO_2 ; and

wherein R_{25} is methyl, ethyl, allyl, phenyl and the phenyl is optionally substituted with a F, Cl, Br, CF_3 , NO_2 .

5

146. A method of treating a subject suffering from anxiety which comprises administering to the subject an amount of compound effective to treat the subject's anxiety wherein the compound has the structure:

10



wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
 H; straight chained or branched C_1 - C_7 alkyl,
 15 monofluoroalkyl or polyfluoroalkyl; straight chained
 or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7
 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -
 I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, -
 $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or
 20 any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent
 carbon atoms can constitute a methylenedioxy group;

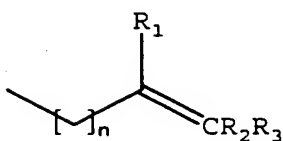
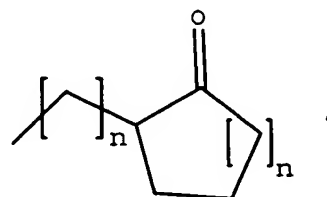
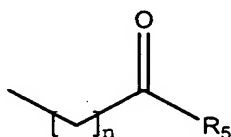
wherein each R_4 is independently -H; straight chained
 or branched C_1 - C_7 alkyl, monofluoroalkyl or

polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl, C₅-C₇ cycloalkenyl, aryl or aryl(C₁-C₆)alkyl;

5 wherein A is A', Q₃, Q₄, Q₅, straight chained or branched C₁-C₇ alkyl, aryl, heteroaryl, aryl(C₁-C₆)alkyl, heteroaryl(C₁-C₆)alkyl, aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl; or (CHR₁₇)_n-Z;

10

wherein A' is

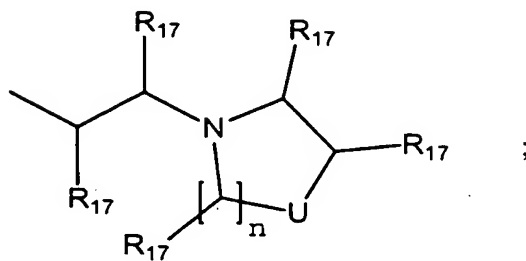


; or



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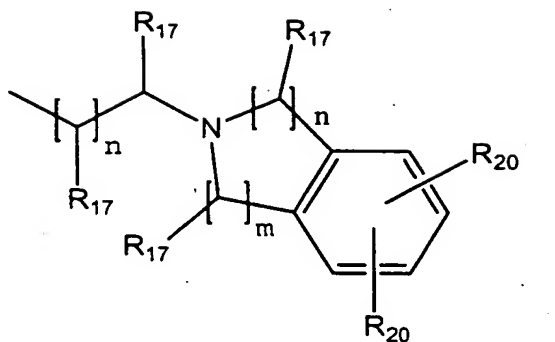
wherein Q₃ is



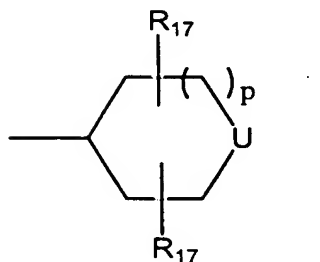
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5

wherein Q_4 is



wherein Q_5 is



10

wherein R_1 and R_2 are each independently H, straight chained or branched C_1 - C_7 alkyl, -F, -Cl, -Br, -I, - NO_2 , or -CN;

15

wherein R_3 is H, straight chained or branched C_1 - C_7 alkyl, -F, -Cl, -Br, -I, - NO_2 , -CN, - OR_6 , aryl or heteroaryl;

20

wherein R_5 is straight chained or branched C_1 - C_7 alkyl, - $N(R_4)_2$, - OR_6 or aryl;

wherein R_6 is straight chained or branched C_1 - C_7 alkyl or aryl;

5 wherein each R_{17} is independently H; straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

15 wherein each R_{20} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; -NO₂; -N₃; -CN; -OR₂₁, -OCOR₂₁, -COR₂₁, -NCOR₂₁, -N(R₂₁)₂, -CON(R₂₁)₂, or -COOR₂₁; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

25 wherein each R_{21} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein each m is an integer from 0 to 4 inclusive;

30 wherein each n is an integer from 1 to 4 inclusive;

wherein each p is an integer from 0 to 2 inclusive;

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

5 wherein Z is C_3-C_{10} cycloalkyl, C_4-C_7 cyclic ether, C_4-C_7 cyclic thioether, aryl, or heteroaryl;

wherein R_{16} is straight chained or branched C_1-C_7 alkyl, straight chained or branched C_1-C_7 monofluoroalkyl, straight chained or branched C_1-C_7 polyfluoroalkyl, straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

15 wherein q is an integer from 2 to 4 inclusive;

wherein B is aryl, heteroaryl, aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl, tricyclic heteroaryl or Q_6 ;

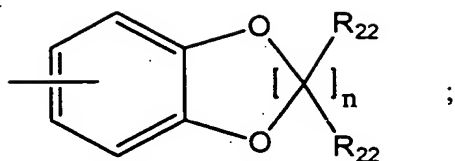
20 provided however, if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond may only be substituted with one or more of the following -F, -Cl, -Br, -I, -CN, methyl, ethyl or methoxy;

25

wherein a tricyclic heteroaryl is a fused three member aromatic system in which one or more of the rings is heteroaryl; carbazole; or acridine;

30

wherein Q_6 is



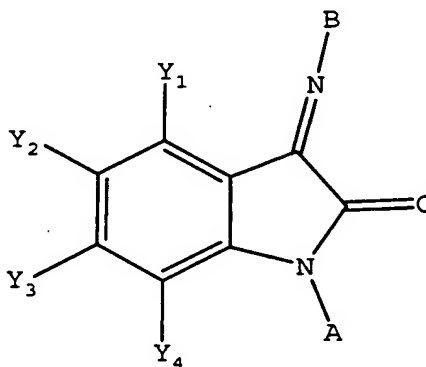
wherein each R_{22} is independently H, F, Cl, or straight chained or branched C_1 - C_4 alkyl;

5

or a pharmaceutically acceptable salt thereof.

147. A method of treating a subject suffering from anxiety which comprises administering to the subject an amount of compound effective to treat the subject's anxiety wherein the compound has the structure:

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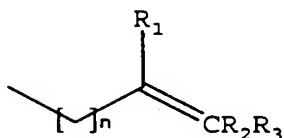
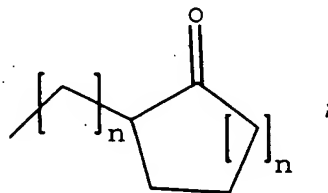
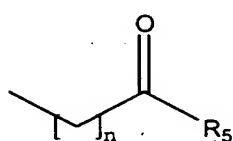
- 15 wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently - H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, - $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or
20 any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent

carbon atoms can constitute a methylenedioxy group;

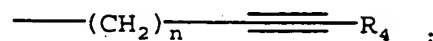
wherein each R_4 is independently -H; straight chained
or branched C_1 - C_7 alkyl, monofluoroalkyl or
polyfluoroalkyl; straight chained or branched C_2 - C_7
alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7
cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein A is A', straight chained or branched C_1 - C_7
alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl or
heteroaryl(C_1 - C_6)alkyl;

wherein A' is



; or



wherein R_1 and R_2 are each independently H, straight
chained or branched C_1 - C_7 alkyl, -F, -Cl, -Br, -I, -
 NO_2 , or -CN;

wherein R_3 is H, straight chained or branched C_1 - C_7
alkyl, -F, -Cl, -Br, -I, - NO_2 , -CN, -OR₆ aryl or

heteroaryl;

wherein R_5 is straight chained or branched C_1-C_7 alkyl, $-N(R_4)_2$, $-OR_6$ or aryl;

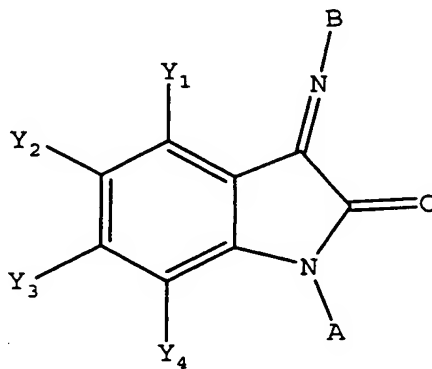
wherein R_6 is straight chained or branched C_1-C_7 alkyl or aryl;

wherein B is aryl, or heteroaryl; provided however, if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond may only be substituted with one or more of the following -F, -Cl, -Br, -I, -CN, methyl, ethyl or methoxy;

wherein n is an integer from 1 to 4 inclusive;

or a pharmaceutically acceptable salt thereof.

148. A method of treating a subject suffering from anxiety which comprises administering to the subject an amount of compound effective to treat the subject's anxiety wherein the compound has the structure:

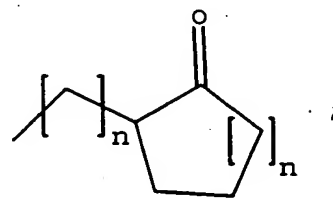
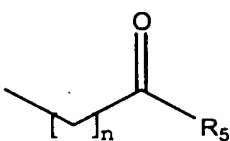


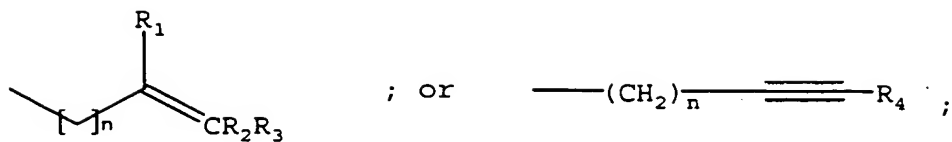
wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
 H; straight chained or branched C_1 - C_7 alkyl,
 monofluoroalkyl or polyfluoroalkyl; straight chained
 5 or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7
 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -
 I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, -
 $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or
 10 any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent
 carbon atoms can constitute a methylenedioxy group;

wherein each R_4 is independently -H; straight chained
 or branched C_1 - C_7 alkyl, monofluoroalkyl or
 polyfluoroalkyl; straight chained or branched C_2 - C_7
 15 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7
 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein A is A', straight chained or branched C_1 - C_7
 alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl or
 20 heteroaryl(C_1 - C_6)alkyl;

wherein A' is

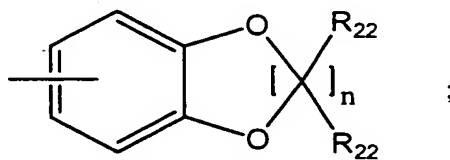




wherein B is aryl substituted with an aryl or
 heteroaryl, heteroaryl substituted with an aryl or
 heteroaryl, tricyclic heteroaryl or Q₆;

wherein a tricyclic heteroaryl is a fused three ring
 aromatic system in which one or more of the rings is
 heteroaryl; carbazole; or acridine;

wherein Q₆ is



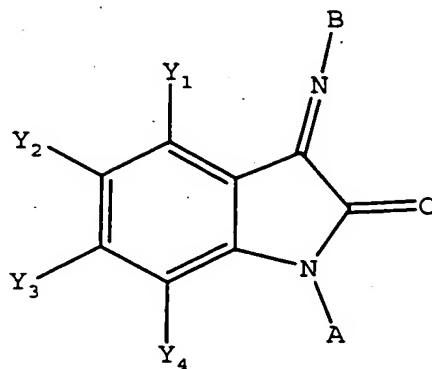
wherein n is an integer from 1 to 4 inclusive;

wherein each R₂₂ is independently H, F,
 Cl, or straight chained or branched C₁-C₄ alkyl;

or a pharmaceutically acceptable salt thereof.

149. A method of treating a subject suffering from
 anxiety which comprises administering to the subject
 an amount of compound effective to treat the

subject's anxiety wherein the compound has the structure:

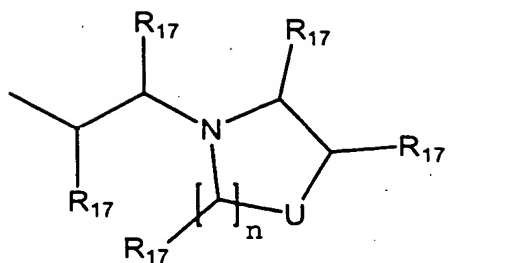


5 wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
H; straight chained or branched C_1 - C_7 alkyl,
monofluoroalkyl or polyfluoroalkyl; straight chained
or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7
cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -
10 I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, -
 $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or
any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent
carbon atoms can constitute a methylenedioxy group;

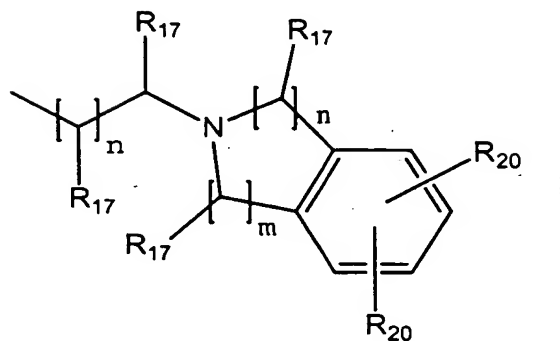
15 wherein each R_4 is independently -H; straight chained
or branched C_1 - C_7 alkyl, monofluoroalkyl or
polyfluoroalkyl; straight chained or branched C_2 - C_7
alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7
cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

20 wherein A is Q_3 , Q_4 , Q_5 , aryl substituted with an
aryl or heteroaryl, heteroaryl substituted with an
aryl or heteroaryl, or $(CHR_{17}) - (CHR_{17})_n - Z$;

25 wherein Q_3 is

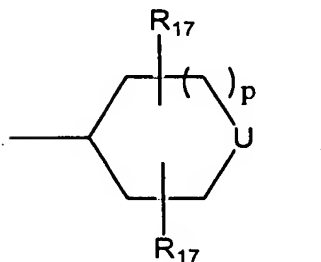


wherein Q₄ is



5

wherein Q₅ is



10

wherein each R₁₇ is independently H; straight chained or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl, straight chained or branched C₂-C₇ alkenyl, straight chained or branched C₂-C₇ alkynyl, C₅-C₇ cycloalkenyl, -(CH₂)_m-Z, or (CH₂)_n-O-(CH₂)_m-CH₃;

15

wherein each R₂₀ is independently -H; straight

chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; -NO₂; -N₃; -CN; -OR₂₁, -OCOR₂₁, -COR₂₁, -NCOR₂₁, -N(R₂₁)₂, -CON(R₂₁)₂, or -COOR₂₁; aryl or heteroaryl; or two R₂₀ groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

wherein each R₂₁ is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl or aryl;

wherein each R₂₂ is independently H, F, Cl, or straight chained or branched C_1 - C_4 alkyl;

wherein q is an integer from 2 to 4 inclusive;

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein each p is an integer from 0 to 2 inclusive;

wherein U is O, -NR₁₆, S, C(R₁₇)₂, or -NSO₂R₁₆;

wherein Z is C_3 - C_{10} cycloalkyl, C_4 - C_7 cyclic ether, C_4 - C_7 cyclic thioether, aryl, or heteroaryl;

wherein R₁₆ is straight chained or branched C_1 - C_7

alkyl, straight chained or branched C₁-C₇,
 monofluoroalkyl, straight chained or branched C₁-C₇,
 polyfluoroalkyl, straight chained or branched C₂-C₇,
 alkenyl, straight chained or branched C₂-C₇, alkynyl,
 5 C₅-C₇ cycloalkenyl, -(CH₂)_m-Z, or (CH₂)_q-O-(CH₂)_m-CH₃;

wherein B is aryl, or heteroaryl; provided however,
 if B is aryl or heteroaryl the carbon atom or carbon
 atoms ortho to the nitrogen atom of the imine bond
 10 may only be substituted with one or more of the
 following -F, -Cl, -Br, -I, -CN, methyl, ethyl or
 methoxy;

or a pharmaceutically acceptable salt thereof.
 15

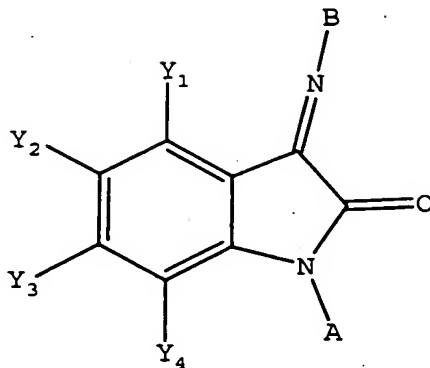
150. The method of claim 146, 147, 148, or 149, wherein
 the compound is enantiomerically and
 diastereomerically pure.

20 151. The method of claim 146, 147, 148, or 149, wherein
 the compound is enantiomerically or
 diastereomerically pure compound.

25 152. The method of claim 146, 147, 148, or 149, wherein
 the compound is a pure Z imine isomer or a pure Z
 alkene isomer.

30 153. The method of claim 146, 147, 148, or 149, wherein
 the compound is a pure E imine isomer or a pure E
 alkene isomer.

154. The method of claim 146 or 147, wherein the compound has the structure:

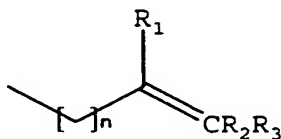


wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, $-CF_3$, -F, -Cl, -Br, -I, $-OR_4$, $-N(R_4)_2$, or $-CON(R_4)_2$;

wherein each R_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, $-CF_3$, or phenyl;

wherein A is A' , straight chained or branched C_1 - C_7 alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl or heteroaryl(C_1 - C_6)alkyl; and

wherein A' is



155. The method of claim 146 or 147, wherein B is heteroaryl.

156. The method of claim 146 or 147, wherein B is aryl.

5

157. The method of claim 156, wherein B is phenyl and the phenyl is optionally substituted with one or more of the following: -F, -Cl, -Br, -CF₃, straight chained or branched C₁-C₇ alkyl, -N(R₄)₂, -OR₄, -COR₄, -NCOR₄,
10 -CO₂R₄, or -CON(R₄)₂.

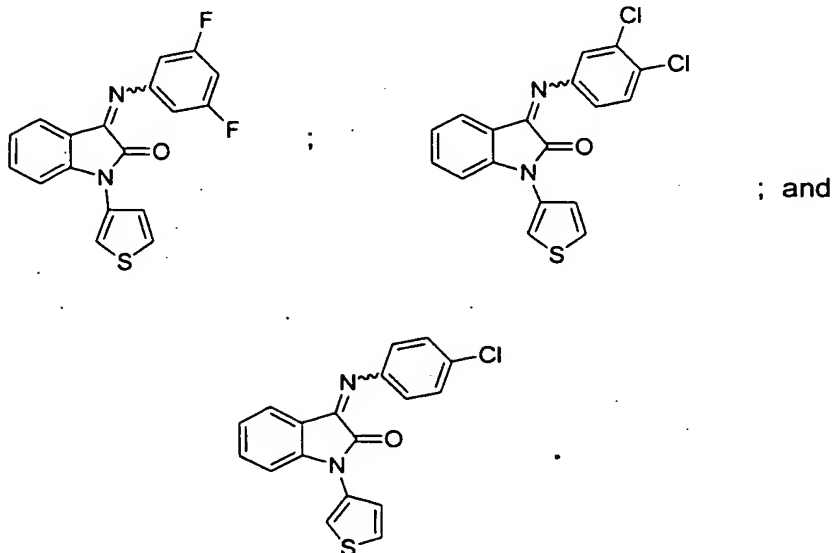
158. The method of claim 157, wherein A is aryl.

159. The method of claim 157, wherein A is heteroaryl.

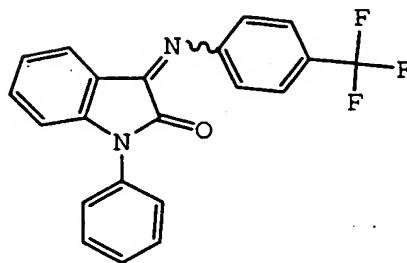
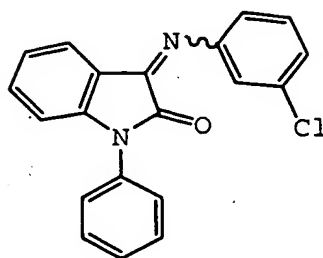
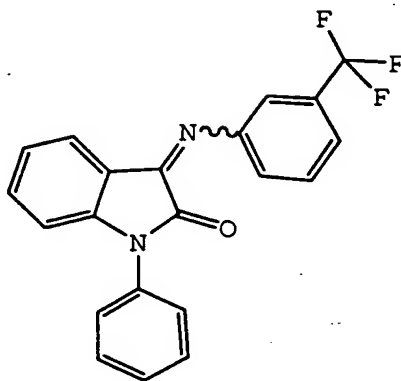
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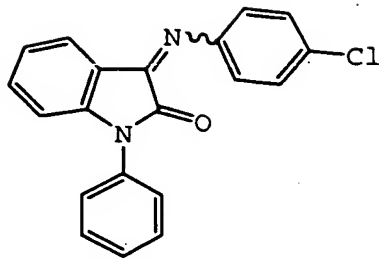
160. The method of claim 159, wherein the compound is selected from the group consisting of:

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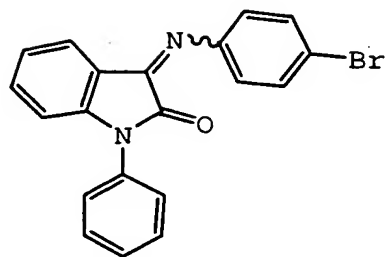


161. The method of claim 158, wherein the compound is selected from the group consisting of:

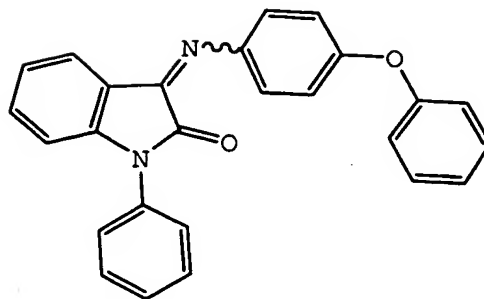




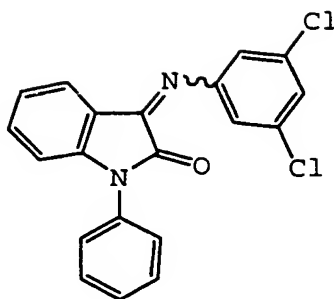
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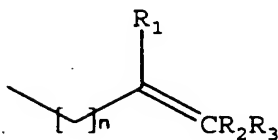
;



; and



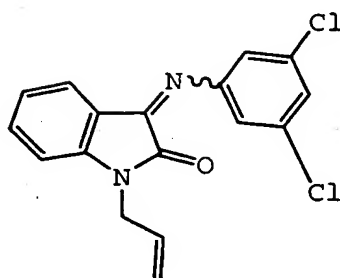
162. The method of claim 156, wherein A is A', and A' is



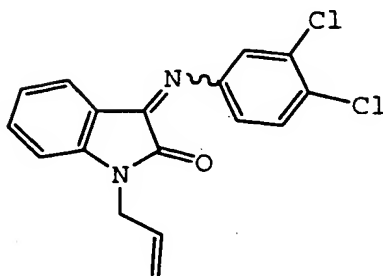
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163. The method of claim 162, wherein the compound is:

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; or

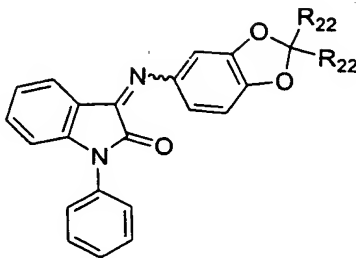


164. The method of claim 148, wherein B is Q₆.

5 165. The method of claim 164, wherein A is aryl.

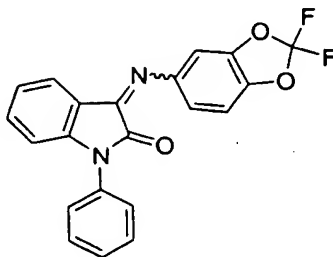
166. The method of claim 165, wherein the compound has the structure:

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167. The method of claim 166, wherein the compound is:

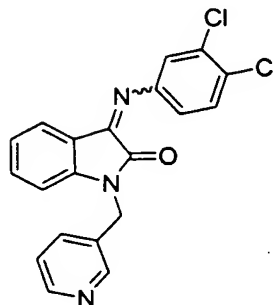


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168. The method of claim 149, wherein B is aryl.

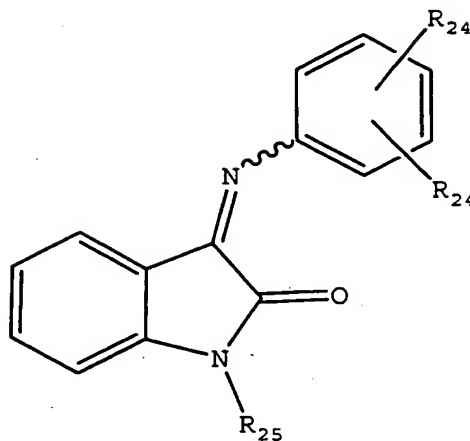
169. The method of claim 168, wherein A is $(\text{CHR}_{17})-(\text{CHR}_{17})_n-\text{Z}$.

170. The method of claim 169, wherein the compound is:



5

171. The method of claim 146, wherein the compound has the structure:



10

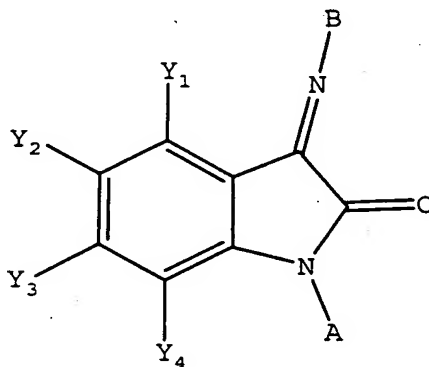
wherein each R_{24} is independently one or more of the following: H, F, Cl, Br, I, CF_3 , OCH_3 or NO_2 ; and

wherein R_{25} is methyl, ethyl, allyl, phenyl and the phenyl is optionally substituted with a F, Cl, Br, CF_3 , NO_2 .

5

172. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound having the structure:

10



wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, - $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent carbon atoms can constitute a methylenedioxy group;

20

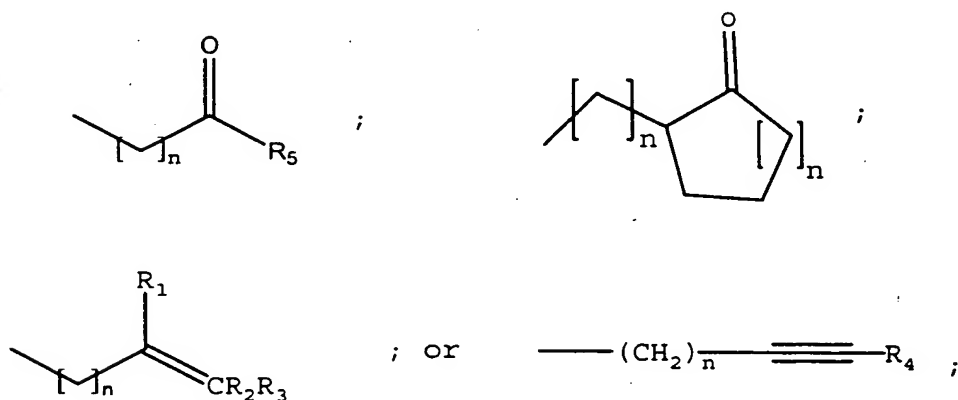
wherein each R_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or

polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl, C₅-C₇ cycloalkenyl, aryl or aryl(C₁-C₆)alkyl;

5 wherein A is A', Q₃, Q₄, Q₅, straight chained or branched C₁-C₇ alkyl, aryl, heteroaryl, aryl(C₁-C₆)alkyl, heteroaryl(C₁-C₆)alkyl, aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl; or (CHR₁₇)_n-Z;

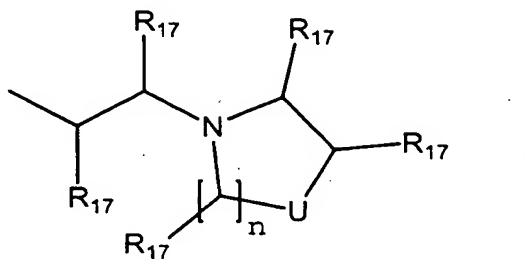
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wherein A' is



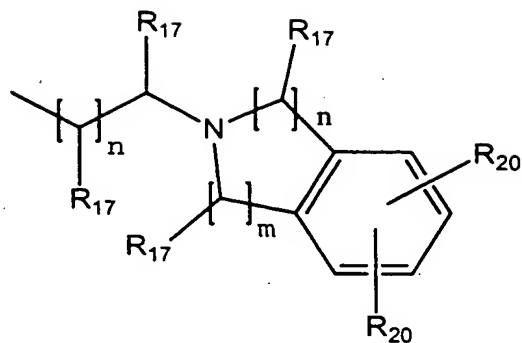
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wherein Q₃ is



20

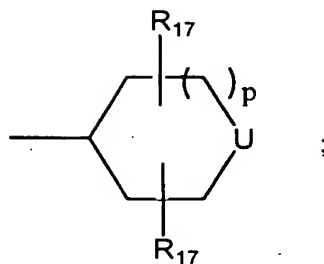
wherein Q_4 is



5

10

wherein Q_5 is



15

wherein R_1 and R_2 are each independently H, straight chained or branched C_1 - C_7 alkyl, -F, -Cl, -Br, -I, - NO_2 , or -CN;

20

wherein R_3 is H, straight chained or branched C_1 - C_7 alkyl, -F, -Cl, -Br, -I, - NO_2 , -CN, -OR₆, aryl or heteroaryl;

wherein R_5 is straight chained or branched C_1 - C_7 alkyl, $-N(R_4)_2$, $-OR_6$ or aryl;

5 wherein R_6 is straight chained or branched C_1 - C_7 alkyl or aryl;

wherein each R_{17} is independently H; straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched
10 C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

15 wherein each R_{20} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; -
20 OR_{21} , $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

25 wherein each R_{21} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

30 wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein each p is an integer from 0 to 2 inclusive;

5 wherein U is O , $-NR_{16}$, S , $C(R_{17})_2$, or $-NSO_2R_{16}$;

wherein Z is C_3 - C_{10} cycloalkyl, C_4 - C_7 cyclic ether, C_4 - C_7 cyclic thioether, aryl, or heteroaryl;

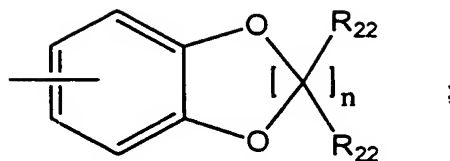
10 wherein R_{16} is straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl,
15 C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein q is an integer from 2 to 4 inclusive;

20 wherein B is aryl, heteroaryl, aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl, tricyclic heteroaryl or Q_6 ; provided however, if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond may only be substituted with
25 one or more of the following $-F$, $-Cl$, $-Br$, $-I$, $-CN$, methyl, ethyl or methoxy;

wherein a tricyclic heteroaryl is a fused three member aromatic system in which one or more of the
30 rings is heteroaryl; carbazole; or acridine;

wherein Q_6 is



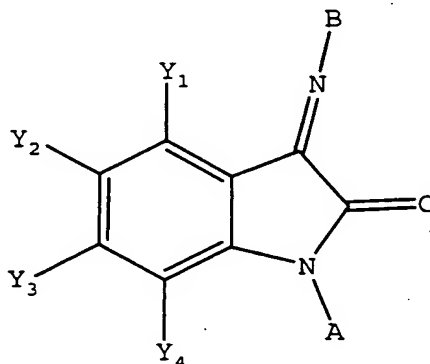
wherein each R_{22} is independently H, F, Cl, or straight chained or branched C_1 - C_4 alkyl;

5

or a pharmaceutically acceptable salt thereof.

173. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound having the structure:

10

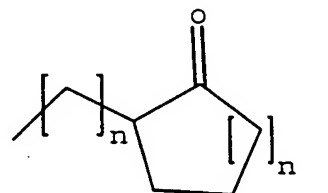
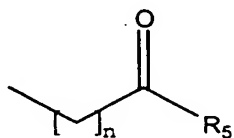


wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
 15 H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, -
 20 $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent carbon atoms can constitute a methylenedioxy group;

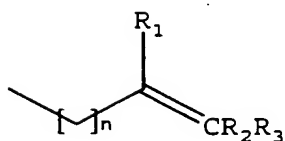
wherein each R_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein A is A', straight chained or branched C_1 - C_7 alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl or heteroaryl(C_1 - C_6)alkyl;

wherein A' is



15



; or



wherein R_1 and R_2 are each independently H, straight chained or branched C_1 - C_7 alkyl, -F, -Cl, -Br, -I, - NO_2 , or -CN;

wherein R_3 is H, straight chained or branched C_1 - C_7 alkyl, -F, -Cl, -Br, -I, - NO_2 , -CN, - OR_6 aryl or

25

heteroaryl;

wherein R_5 is straight chained or branched C_1-C_7 alkyl, $-N(R_4)_2$, $-OR_6$ or aryl;

5

wherein R_6 is straight chained or branched C_1-C_7 alkyl or aryl;

10

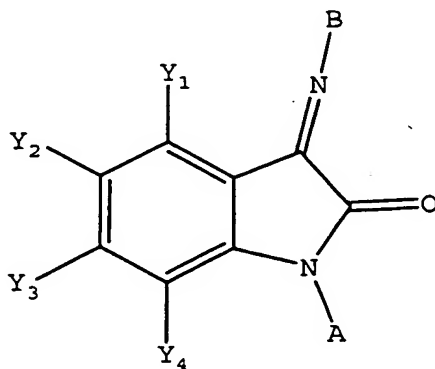
wherein B is aryl, or heteroaryl; provided however, if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond may only be substituted with one or more of the following -F, -Cl, -Br, -I, -CN, methyl, ethyl or methoxy;

15

wherein n is an integer from 1 to 4 inclusive;

or a pharmaceutically acceptable salt thereof.

20 174. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound having the structure:



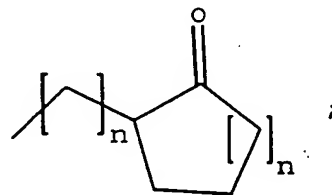
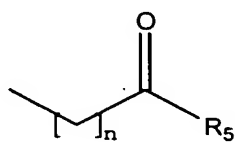
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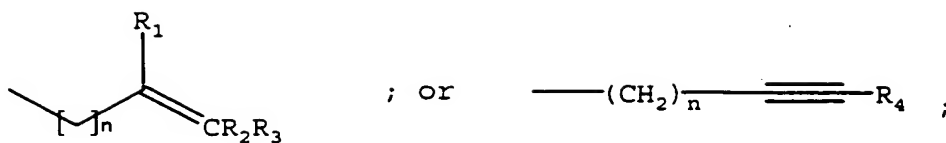
wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
 H; straight chained or branched C_1 - C_7 alkyl,
 monofluoroalkyl or polyfluoroalkyl; straight chained
 or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7
 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -
 I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, -
 $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or
 any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent
 carbon atoms can constitute a methylenedioxy group;

wherein each R_4 is independently -H; straight chained
 or branched C_1 - C_7 alkyl, monofluoroalkyl or
 polyfluoroalkyl; straight chained or branched C_2 - C_7
 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7
 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein A is A', straight chained or branched C_1 - C_7
 alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl or
 heteroaryl(C_1 - C_6)alkyl;

wherein A' is





5

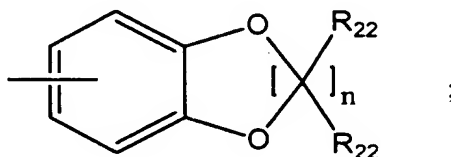
wherein B is aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl, tricyclic heteroaryl or Q₆;

10

wherein a tricyclic heteroaryl is a fused three ring aromatic system in which one or more of the rings is heteroaryl; carbazole; or acridine;

15

wherein Q₆ is



20

wherein n is an integer from 1 to 4 inclusive;

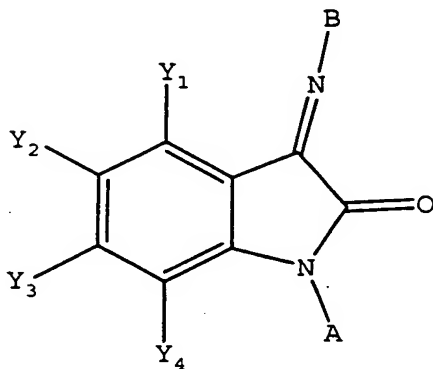
wherein each R₂₂ is independently H, F, Cl, or straight chained or branched C₁-C₄ alkyl;

25

or a pharmaceutically acceptable salt thereof.

175. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound having the structure:

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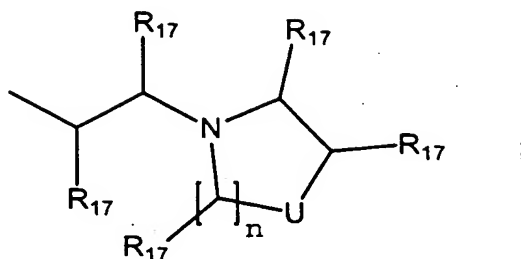
wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
 H; straight chained or branched C_1 - C_7 alkyl,
 monofluoroalkyl or polyfluoroalkyl; straight chained
 10 or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7
 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -
 I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, -
 $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or
 15 any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent
 carbon atoms can constitute a methylenedioxy group;

wherein each R_4 is independently -H; straight chained
 or branched C_1 - C_7 alkyl, monofluoroalkyl or
 20 polyfluoroalkyl; straight chained or branched C_2 - C_7
 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7
 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein A is Q_3 , Q_4 , Q_5 , aryl substituted with an
 25 aryl or heteroaryl, heteroaryl substituted with an

aryl or heteroaryl, or $(\text{CHR}_{17}) - (\text{CHR}_{17})_n - \text{Z}$;

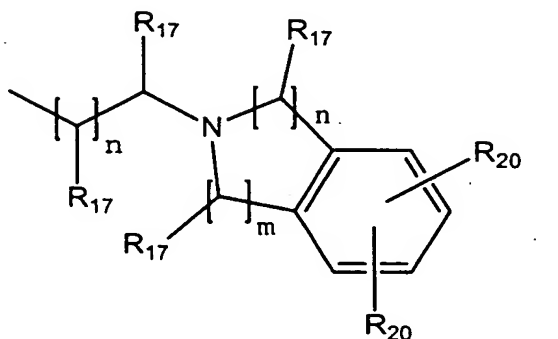
wherein Q_3 is



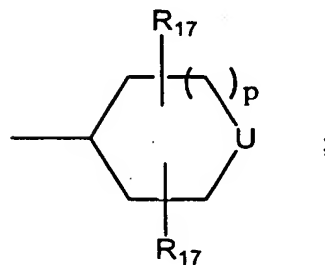
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wherein Q_4 is



wherein Q_5 is



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wherein each R_{17} is independently H; straight chained

or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl, straight chained or branched C₂-C₇ alkenyl, straight chained or branched C₂-C₇ alkynyl, C₅-C₇ cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein each R₂₀ is independently -H; straight chained or branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl or C₅-C₇ cycloalkenyl; -F, -Cl, -Br, or -I; -NO₂; -N₃; -CN; -OR₂₁, -OCOR₂₁, -COR₂₁, -NCOR₂₁, -N(R₂₁)₂, -CON(R₂₁)₂, or -COOR₂₁; aryl or heteroaryl; or two R₂₀ groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

wherein each R₂₁ is independently -H; straight chained or branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl, C₅-C₇ cycloalkenyl or aryl;

wherein each R₂₂ is independently H, F, Cl, or straight chained or branched C₁-C₄ alkyl;

wherein q is an integer from 2 to 4 inclusive;

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein each p is an integer from 0 to 2 inclusive;

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

5 wherein Z is C_3-C_{10} cycloalkyl, C_4-C_7 cyclic ether, C_4-C_7 cyclic thioether, aryl, or heteroaryl;

wherein R_{16} is straight chained or branched C_1-C_7 alkyl, straight chained or branched C_1-C_7 monofluoroalkyl, straight chained or branched C_1-C_7 polyfluoroalkyl, straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl, C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

15 wherein B is aryl, or heteroaryl; provided however, if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond may only be substituted with one or more of the following -F, -Cl, -Br, -I, -CN, methyl, ethyl or
20 methoxy;

or a pharmaceutically acceptable salt thereof.

25 176. The pharmaceutical composition of claim 172, 173, 174, or 175, wherein the compound is an enantiomerically and diastereomerically pure compound.

30 177. The pharmaceutical composition of claim 172, 173, 174, or 175, wherein the compound is an enantiomerically or diastereomerically pure compound.

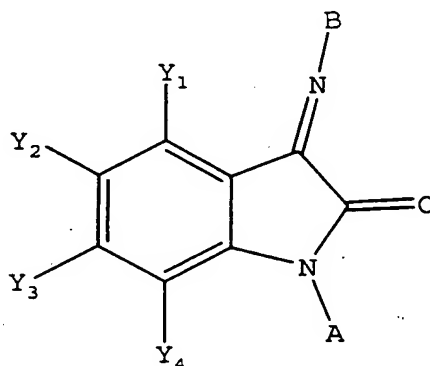
178. The pharmaceutical composition of claim 172, 173, 174, or 175, wherein the compound is a pure Z imine isomer or a pure Z alkene isomer.

5 179. The pharmaceutical composition of claim 172, 173, 174, or 175, wherein the compound is a pure E imine isomer or a pure E alkene isomer.

10 180. The pharmaceutical composition of claim 172, 173, 174, or 175, wherein the composition can be administered orally.

181. The pharmaceutical composition of claim 172 or 173, wherein the compound has the structure:

15



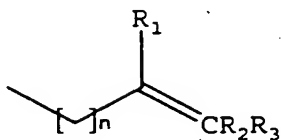
20 wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, $-CF_3$, -F, -Cl, -Br, -I, $-OR_4$, $-N(R_4)_2$, or $-CON(R_4)_2$;

wherein each R_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, $-CF_3$, or phenyl;

25 wherein A is A' , straight chained or branched C_1 - C_7

alkyl, aryl, heteroaryl, aryl(C₁-C₆)alkyl or heteroaryl(C₁-C₆)alkyl; and

wherein A' is



5

182. The pharmaceutical composition of claim 172, 173 or 175, wherein B is heteroaryl.

10 183. The pharmaceutical composition of claim 172 or 173, wherein B is aryl.

184. The pharmaceutical composition of claim 183, wherein B is phenyl and the phenyl is optionally substituted
15 with one or more of the following: -F, -Cl, -Br, -CF₃, straight chained or branched C₁-C₇ alkyl, -N(R₄)₂, -OR₄, -COR₄, -NCOR₄, -CO₂R₄, or -CON(R₄)₂.

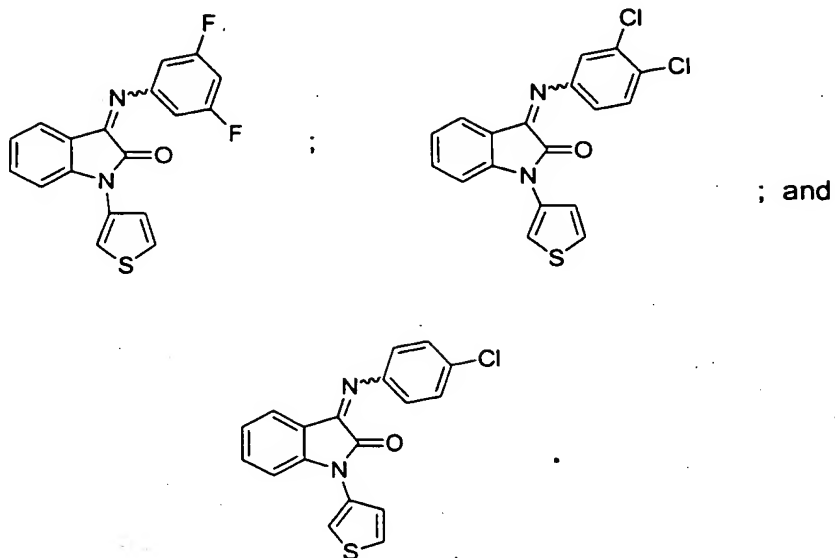
185. The pharmaceutical composition of claim 184, wherein
20 A is aryl.

186. The pharmaceutical composition of claim 184, wherein A is heteroaryl.

25

187. The pharmaceutical composition of claim 186, wherein the compound is selected from the group consisting of:

5



188. The pharmaceutical composition of claim 174, wherein
10 B is Q₆.

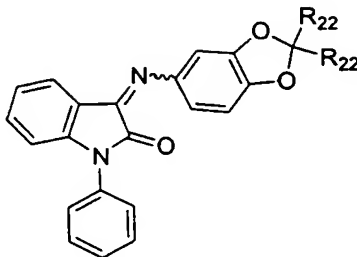
189. The pharmaceutical composition of claim 188, wherein
A is aryl.

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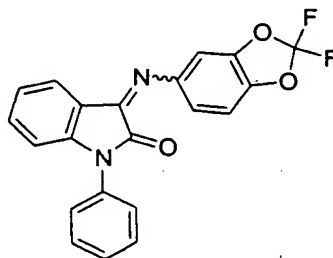
190. The pharmaceutical composition of claim 189, wherein the compound has the structure:

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191. The pharmaceutical composition of claim 190, wherein the compound is:



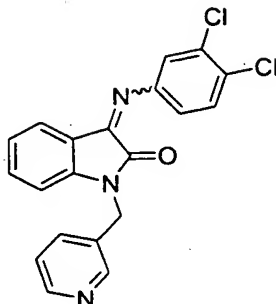
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192. The pharmaceutical composition of claim 175, wherein B is aryl.

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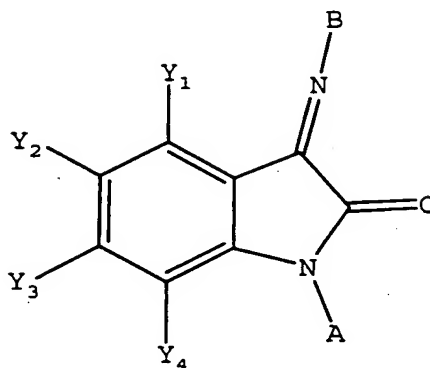
193. The pharmaceutical composition of claim 192, wherein A is $(\text{CHR}_{17}) - (\text{CHR}_{17})_n - \text{Z}$.

194. The pharmaceutical composition of claim 193, wherein the compound is:



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195. A compound having the structure:



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wherein each of Y₁, Y₂, Y₃, and Y₄ is independently - H; straight chained or branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl, or C₅-C₇ cycloalkenyl; -F, -Cl, -Br, or -I; -NO₂; -N₃; -CN; -OR₄, -SR₄, -OCOR₄, -COR₄, -NCOR₄, -N(R₄)₂, -CON(R₄)₂, or -COOR₄; aryl or heteroaryl; or

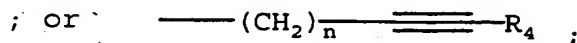
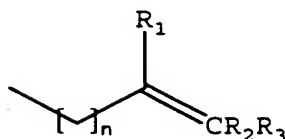
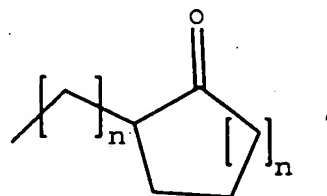
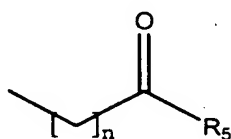
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any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent carbon atoms can constitute a methylenedioxy group;

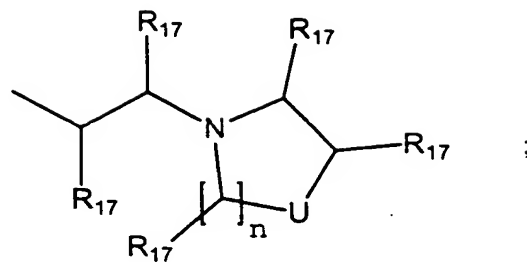
wherein each R_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

wherein A is A' , Q_3 , Q_4 , Q_5 , straight chained or branched C_1 - C_7 alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl, heteroaryl(C_1 - C_6)alkyl, aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl; or $(CHR_{17})-(CHR_{17})_n-Z$;

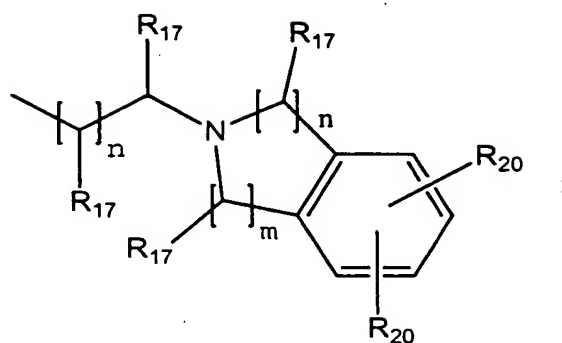
wherein A' is



wherein Q_3 is

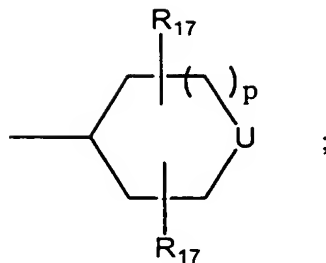


5 wherein Q₄ is



10

wherein Q₅ is



15

wherein R₁ and R₂ are each independently H, straight

chained or branched C₁-C₇ alkyl, -F, -Cl, -Br, -I, -NO₂, or -CN;

5 wherein R₃ is H, straight chained or branched C₁-C₇ alkyl, -F, -Cl, -Br, -I, -NO₂, -CN, -OR₆, aryl or heteroaryl;

10 wherein R₅ is straight chained or branched C₁-C₇ alkyl, -N(R₄)₂, -OR₆ or aryl;

wherein R₆ is straight chained or branched C₁-C₇ alkyl or aryl;

15 wherein each R₁₇ is independently H; straight chained or branched C₁-C₇ alkyl, straight chained or branched C₁-C₇ monofluoroalkyl, straight chained or branched C₁-C₇ polyfluoroalkyl, straight chained or branched C₂-C₇ alkenyl, straight chained or branched C₂-C₇ alkynyl, C₅-C₇ cycloalkenyl, -(CH₂)_m-Z, or (CH₂)_n-O-(CH₂)_m-CH₃;

20

25 wherein each R₂₀ is independently -H; straight chained or branched C₁-C₇ alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C₂-C₇ alkenyl or alkynyl; C₃-C₇ cycloalkyl or C₅-C₇ cycloalkenyl; -F, -Cl, -Br, or -I; -NO₂; -N₃; -CN; -OR₂₁, -OCOR₂₁, -COR₂₁, -NCOR₂₁, -N(R₂₁)₂, -CON(R₂₁)₂, or -COOR₂₁; aryl or heteroaryl; or two R₂₀ groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

30

wherein each R₂₁ is independently -H; straight

chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl; C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

5

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

10

wherein each p is an integer from 0 to 2 inclusive;

wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

15

wherein Z is C_3 - C_{10} cycloalkyl, C_4 - C_7 cyclic ether, C_4 - C_7 cyclic thioether, aryl, or heteroaryl;

20

wherein R_{16} is straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

25

wherein q is an integer from 2 to 4 inclusive;

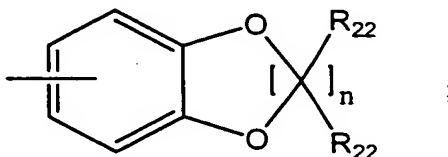
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wherein B is aryl, heteroaryl, aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl, tricyclic heteroaryl or Q_6 ; provided however, if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond may only be substituted with one or more of the following -F, -Cl, -Br, -I, -CN,

methyl, ethyl or methoxy;

wherein a tricyclic heteroaryl is a fused three member aromatic system in which one or more of the
 5 rings is heteroaryl; carbazole; or acridine;

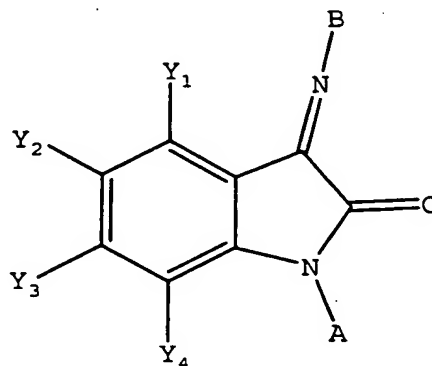
wherein Q_6 is



10 wherein each R_{22} is independently H, F, Cl, or straight chained or branched C_1-C_4 alkyl;

or a pharmaceutically acceptable salt thereof.

15 196. A compound having the structure:



wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
 H; straight chained or branched C_1-C_7 alkyl,
 20 monofluoroalkyl or polyfluoroalkyl; straight chained
 or branched C_2-C_7 alkenyl or alkynyl; C_3-C_7
 cycloalkyl, or C_5-C_7 cycloalkenyl; -F, -Cl, -Br, or -

I; $-\text{NO}_2$; $-\text{N}_3$; $-\text{CN}$; $-\text{OR}_4$, $-\text{SR}_4$, $-\text{OCOR}_4$, $-\text{COR}_4$, $-\text{NCOR}_4$, $-\text{N}(\text{R}_4)_2$, $-\text{CON}(\text{R}_4)_2$, or $-\text{COOR}_4$; aryl or heteroaryl; or any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent carbon atoms can constitute a methylenedioxy group;

5

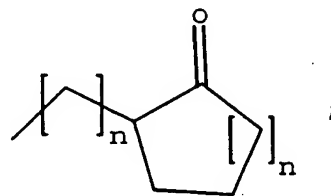
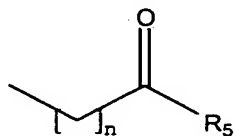
wherein each R_4 is independently $-\text{H}$; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

10

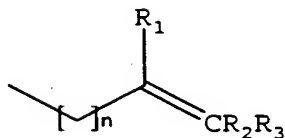
wherein A is A', straight chained or branched C_1 - C_7 alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl or heteroaryl(C_1 - C_6)alkyl;

15

wherein A' is



20



; or



25

wherein R_1 and R_2 are each independently H , straight chained or branched C_1 - C_7 alkyl, $-\text{F}$, $-\text{Cl}$, $-\text{Br}$, $-\text{I}$, -

NO₂, or -CN;

5 wherein R₃ is H, straight chained or branched C₁-C₇ alkyl, -F, -Cl, -Br, -I, -NO₂, -CN, -OR₆ aryl or heteroaryl;

wherein R₅ is straight chained or branched C₁-C₇ alkyl, -N(R₄)₂, -OR₆ or aryl;

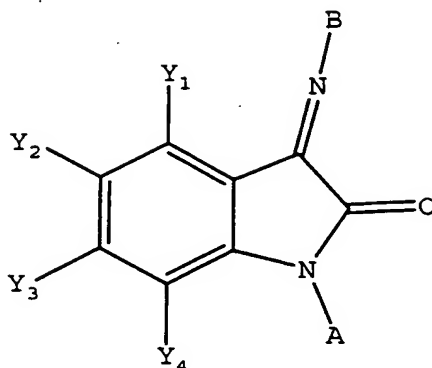
10 wherein R₆ is straight chained or branched C₁-C₇ alkyl or aryl;

15 wherein B is aryl, or heteroaryl; provided however, if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond may only be substituted with one or more of the following -F, -Cl, -Br, -I, -CN, methyl, ethyl or methoxy;

20 wherein n is an integer from 1 to 4 inclusive;

or a pharmaceutically acceptable salt thereof.

197. A compound having the structure:

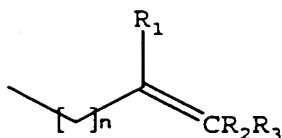
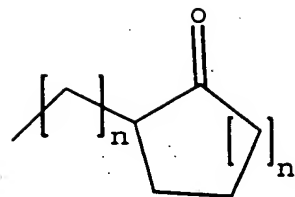
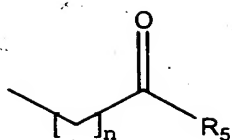


5. wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -
H; straight chained or branched C_1 - C_7 alkyl,
monofluoroalkyl or polyfluoroalkyl; straight chained
or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7
cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -
10 I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, -
 $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or
any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent
carbon atoms can constitute a methylenedioxy group;

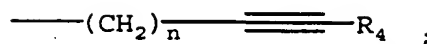
15 wherein each R_4 is independently -H; straight chained
or branched C_1 - C_7 alkyl, monofluoroalkyl or
polyfluoroalkyl; straight chained or branched C_2 - C_7
alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7
cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

20 wherein A is A', straight chained or branched C_1 - C_7
alkyl, aryl, heteroaryl, aryl(C_1 - C_6)alkyl or
heteroaryl(C_1 - C_6)alkyl;

25 wherein A' is



; or

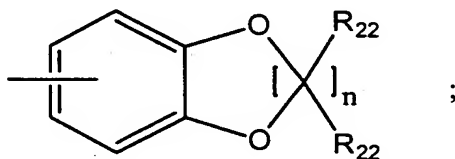


5

wherein B is aryl substituted with an aryl or
 10 heteroaryl, heteroaryl substituted with an aryl or
 heteroaryl, tricyclic heteroaryl or Q₆;

wherein a tricyclic heteroaryl is a fused three ring
 aromatic system in which one or more of the rings is
 15 heteroaryl; carbazole; or acridine;

wherein Q₆ is



20

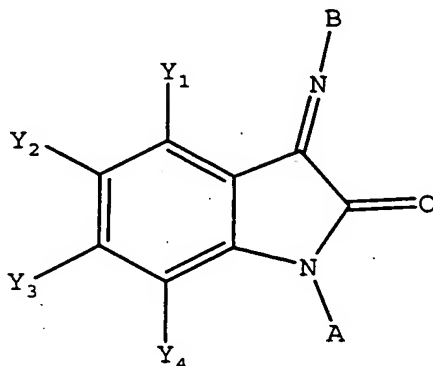
wherein n is an integer from 1 to 4 inclusive;

wherein each R_{22} is independently H, F, Cl, or straight chained or branched C_1 - C_4 alkyl;

or a pharmaceutically acceptable salt thereof.

5

198. A compound having the structure:



10

wherein each of Y_1 , Y_2 , Y_3 , and Y_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; - NO_2 ; - N_3 ; -CN; - OR_4 , - SR_4 , - $OCOR_4$, - COR_4 , - $NCOR_4$, - $N(R_4)_2$, - $CON(R_4)_2$, or - $COOR_4$; aryl or heteroaryl; or any two of Y_1 , Y_2 , Y_3 and Y_4 present on adjacent carbon atoms can constitute a methylenedioxy group;

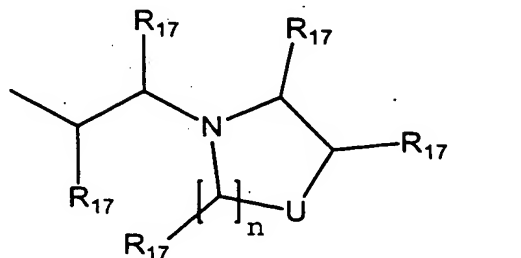
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wherein each R_4 is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl, aryl or aryl(C_1 - C_6)alkyl;

25

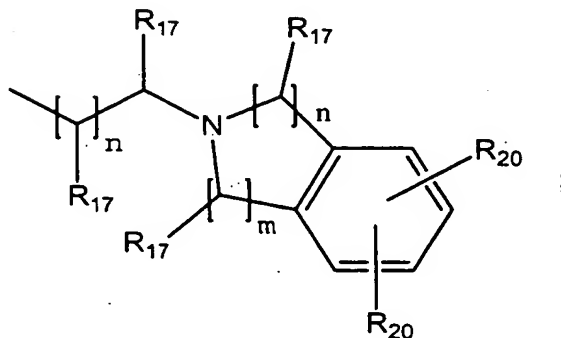
wherein A is Q₃, Q₄, Q₅, aryl substituted with an aryl or heteroaryl, heteroaryl substituted with an aryl or heteroaryl, or (CHR₁₇)_n-Z;

5 wherein Q₃ is

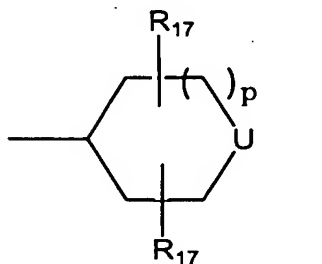


10

wherein Q₄ is



15 wherein Q₅ is



wherein each R_{17} is independently H; straight chained or branched C_1 - C_7 alkyl, straight chained or branched C_1 - C_7 monofluoroalkyl, straight chained or branched C_1 - C_7 polyfluoroalkyl, straight chained or branched C_2 - C_7 alkenyl, straight chained or branched C_2 - C_7 alkynyl, C_5 - C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_n-O-(CH_2)_m-CH_3$;

wherein each R_{20} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl or C_5 - C_7 cycloalkenyl; -F, -Cl, -Br, or -I; $-NO_2$; $-N_3$; -CN; $-OR_{21}$, $-OCOR_{21}$, $-COR_{21}$, $-NCOR_{21}$, $-N(R_{21})_2$, $-CON(R_{21})_2$, or $-COOR_{21}$; aryl or heteroaryl; or two R_{20} groups present on adjacent carbon atoms can join together to form a methylenedioxy group;

wherein each R_{21} is independently -H; straight chained or branched C_1 - C_7 alkyl, monofluoroalkyl or polyfluoroalkyl; straight chained or branched C_2 - C_7 alkenyl or alkynyl; C_3 - C_7 cycloalkyl, C_5 - C_7 cycloalkenyl or aryl;

wherein each R_{22} is independently H, F, Cl, or straight chained or branched C_1 - C_4 alkyl;

wherein q is an integer from 2 to 4 inclusive;

wherein each m is an integer from 0 to 4 inclusive;

wherein each n is an integer from 1 to 4 inclusive;

wherein each p is an integer from 0 to 2 inclusive;

5 wherein U is O, $-NR_{16}$, S, $C(R_{17})_2$, or $-NSO_2R_{16}$;

wherein Z is C_3-C_{10} cycloalkyl, C_4-C_7 cyclic ether, C_4-C_7 cyclic thioether, aryl, or heteroaryl;

10 wherein R_{16} is straight chained or branched C_1-C_7 alkyl, straight chained or branched C_1-C_7 monofluoroalkyl, straight chained or branched C_1-C_7 polyfluoroalkyl, straight chained or branched C_2-C_7 alkenyl, straight chained or branched C_2-C_7 alkynyl,
15 C_5-C_7 cycloalkenyl, $-(CH_2)_m-Z$, or $(CH_2)_q-O-(CH_2)_m-CH_3$;

wherein B is aryl, or heteroaryl; provided however, if B is aryl or heteroaryl the carbon atom or carbon atoms ortho to the nitrogen atom of the imine bond
20 may only be substituted with one or more of the following -F, -Cl, -Br, -I, -CN, methyl, ethyl or methoxy;

25 or a pharmaceutically acceptable salt thereof.

199. An enantiomerically and diastereomerically pure compound of claim 195, 196, 197, or 198.

30 200. An enantiomerically or diastereomerically pure compound of claim 195, 196, 197, or 198.

201. A pure Z imine isomer or a pure Z alkene isomer of

the compound of claim 195, 196, 197, or 198.

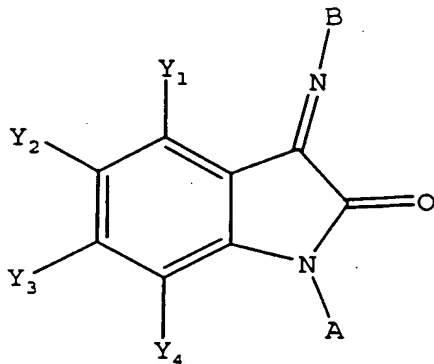
202. A pure E imine isomer or a pure E alkene isomer of the compound of claim 195, 196, 197, or 198.

5

203. The compound of claim 195, 196, 197, or 198, wherein the compound can be administered orally.

10

204. The compound of claim 195 or 196, wherein the compound has the structure:



15

wherein each of Y₁, Y₂, Y₃, and Y₄ is independently -H; straight chained or branched C₁-C₇ alkyl, -CF₃, -F, -Cl, -Br, -I, -OR₄, -N(R₄)₂, or -CON(R₄)₂;

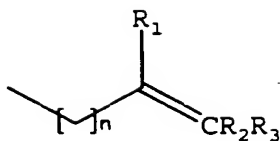
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wherein each R₄ is independently -H; straight chained or branched C₁-C₇ alkyl, -CF₃, or phenyl;

25

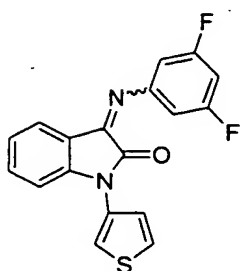
wherein A is A', straight chained or branched C₁-C₇ alkyl, aryl, heteroaryl, aryl(C₁-C₆)alkyl or heteroaryl(C₁-C₆)alkyl; and

wherein A' is

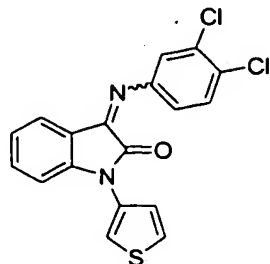


205. The compound of claim 195, 196 or 198, wherein B is heteroaryl.
206. The compound of claim 195 or 196, wherein B is aryl.
207. The compound of claim 206, wherein B is phenyl and the phenyl is optionally substituted with one or more of the following: -F, -Cl, -Br, -CF₃, straight chained or branched C₁-C₇ alkyl, -N(R₄)₂, -OR₄, -COR₄, -NCOR₄, -CO₂R₄, or -CON(R₄)₂.
208. The compound of claim 207, wherein A is aryl.
209. The compound of claim 207, wherein A is heteroaryl.

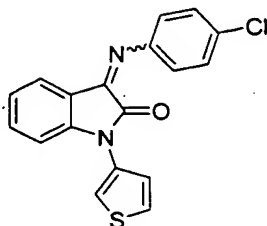
210. The compound of claim 209, wherein the compound is selected from the group consisting of:



;



; and

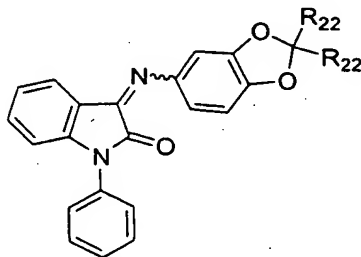


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211. The compound of claim 197, wherein B is Q₆.

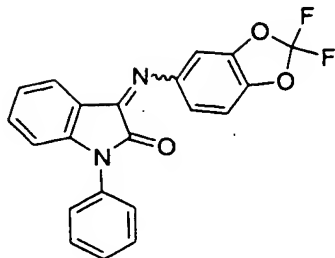
10 212. The compound of claim 211, wherein A is aryl.

213. The compound of claim 212, wherein the compound has the structure:



15

214. The compound of claim 213, wherein the compound is:

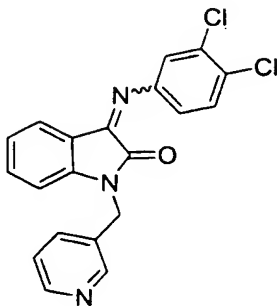


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215. The compound of claim 198, wherein B is aryl.

216. The compound of claim 215, wherein A is $(\text{CHR}_{17})_n$ -
10 $(\text{CHR}_{17})_n$ -Z.

217. The compound of claim 215, wherein the compound is:



15

218. A pure Z imine isomer of the compound of claim 195,
196, 197 or 198.

219. A pure E imine isomer of the compound of claim 195,
20 196, 197 or 198.

220. A pharmaceutical composition comprising a therapeutically effective amount of the compound of claim 195, 196, 197 or 198, and a pharmaceutically acceptable carrier.

5

221. A pharmaceutical composition made by combining a therapeutically effective amount of the compound of claim 195, 196, 197 or 198, and a pharmaceutically acceptable carrier.

10

222. A process for making a pharmaceutical composition comprising combining a therapeutically effective amount of the compound of claim 195, 196, 197 or 198, and a pharmaceutically acceptable carrier.

15

223. A method of treating a subject suffering from depression which comprises administering to the subject an amount of the compound of claim 195, 196, 197 or 198 effective to treat the subject's depression.

20

224. A method of treating a subject suffering from anxiety which comprises administering to the subject an amount of the compound of claim 195, 196, 197 or 198 effective to treat the subject's anxiety.

25

225. A method of treating a subject suffering from depression and anxiety which comprises administering to the subject an amount of the compound of claim 195, 196, 197 or 198 effective to treat the subject's depression and anxiety.

30

226. A method of treating depression in a subject which comprises administering to the subject a composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a GAL3 receptor antagonist, wherein:

- (a) the GAL3 receptor antagonist binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to the human GAL1 receptor;
- (b) (1) the GAL3 receptor antagonist does not inhibit the activity of central monoamine oxidase A greater than 50 percent, at a concentration of 10 μ M; and
(2) the GAL3 receptor antagonist does not inhibit the activity of central monoamine oxidase B greater than 50 percent, at a concentration of 10 μ M; and
- (c) the GAL3 receptor antagonist binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to each of the following transporters: serotonin transporter, norepinephrine transporter, and dopamine transporter.

227. The method of claim 226, wherein the receptor antagonist binds to the human GAL3 receptor with a binding affinity at least 30-fold higher than the binding affinity with which it binds to the human GAL1 receptor.

228. The method of claim 227, wherein the receptor antagonist binds to the human GAL3 receptor with a binding affinity at least 50-fold higher than the binding affinity with which it binds to the human GAL1 receptor.

229. The method of claim 228, wherein the receptor

antagonist binds to the human GAL3 receptor with a binding affinity at least 100-fold higher than the binding affinity with which it binds to the human GAL1 receptor.

5 230. The method of claim 229, wherein the receptor antagonist binds to the human GAL3 receptor with a binding affinity at least 200-fold higher than the binding affinity with which it binds to the human GAL1 receptor.

10 231. The method of claim 226, wherein the receptor antagonist additionally binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to the human GAL2 receptor.

15 232. The method of claim 226, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to each of the human 5HT_{1B},
20 human 5HT_{1D}, human 5HT_{1E}, human 5HT_{1F}, human 5HT_{2A}, rat 5HT_{2C}, human 5HT₆ and human 5HT₇ receptors.

233. The method of claim 226, wherein the receptor antagonist also binds to the human GAL3 receptor with a
25 binding affinity at least ten-fold higher than the binding affinity with which it binds to the human histamine H₁ receptor.

234. The method of claim 226, wherein the receptor antagonist also binds to the human GAL3 receptor with a
30 binding affinity at least ten-fold higher than the binding affinity with which it binds to the human dopamine D₁, D₂, D₃, D₄ and D₅ receptors.

235. The method of claim 226, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to the human α_{1A} adrenoceptor, the human α_{1B} adrenoceptor and the human α_{1D} adrenoceptor.

236. The method of claim 226, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to the human α_{2A} adrenoceptor, the human α_{2B} adrenoceptor and the human α_{2C} adrenoceptor.

237. The method of claim 226, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity less than ten-fold higher than the binding affinity with which it binds to the human 5HT₄ receptor.

238. The method of claim 226, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity less than ten-fold higher than the binding affinity with which it binds to the human 5HT_{1A} receptor.

239. The method of claim 226, wherein the receptor antagonist does not inhibit the activity of central monoamine oxidase A greater than 30 percent.

240. The method of claim 226, wherein the receptor antagonist does not inhibit the activity of central monoamine oxidase B greater than 30 percent.

241. The method of claim 226, wherein the receptor antagonist does not inhibit the activity of central monoamine oxidase A greater than 15 percent.

242. The method of claim 226, wherein the receptor antagonist does not inhibit the activity of central monoamine oxidase B greater than 15 percent.

5

243. A method of treating anxiety in a subject which comprises administering to the subject a composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a GAL3 receptor antagonist, wherein:

10

(a) the GAL3 receptor antagonist binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to the human GAL1 receptor; and

15

(b) the GAL3 receptor antagonist binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to each of the following transporters: serotonin transporter, norepinephrine transporter, and dopamine transporter.

20

244. The method of claim 243, wherein the receptor antagonist binds to the human GAL3 receptor with a binding affinity at least 30-fold higher than the binding affinity with which it binds to the human GAL1 receptor.

25

245. The method of claim 244, wherein the receptor antagonist binds to the human GAL3 receptor with a binding affinity at least 50-fold higher than the binding affinity with which it binds to the human GAL1 receptor.

30

246. The method of claim 245, wherein the receptor antagonist binds to the human GAL3 receptor with a binding affinity at least 100-fold higher than the binding affinity

with which it binds to the human GAL1 receptor.

247. The method of claim 246, wherein the receptor antagonist binds to the human GAL3 receptor with a binding affinity at least 200-fold higher than the binding affinity with which it binds to the human GAL1 receptor.

248. The method of claim 243, wherein the receptor antagonist additionally binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to the human GAL2 receptor.

249. The method of claim 243, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to each of the human 5HT_{1B}, human 5HT_{1D}, human 5HT_{1E}, human 5HT_{1F}, human 5HT_{2A}, rat 5HT_{2C}, human 5HT₆ and human 5HT₇ receptors.

250. The method of claim 243, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to the human histamine H₁ receptor.

251. The method of claim 243, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to the human dopamine D₁, D₂, D₃, D₄ and D₅ receptors.

252. The method of claim 243, wherein the receptor antagonist also binds to the human GAL3 receptor with a

binding affinity at least ten-fold higher than the binding affinity with which it binds to the human α_{1A} adrenoceptor, the human α_{1B} adrenoceptor and the human α_{1D} adrenoceptor.

5 253. The method of claim 243, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity at least ten-fold higher than the binding affinity with which it binds to the human α_{2A} adrenoceptor, the human α_{2B} adrenoceptor and the human α_{2C} adrenoceptor.

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254. The method of claim 243, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity less than ten-fold higher than the binding affinity with which it binds to the human 5HT₄ receptor.

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255. The method of claim 243, wherein the receptor antagonist also binds to the human GAL3 receptor with a binding affinity less than ten-fold higher than the binding affinity with which it binds to the human 5HT_{1A} receptor.